Buyers' Directory of The Rubber Trade PAGE XLIII.

The BEST BUCKLES for ARCTICS ARE TADE BY

THE WELD MFG. CO., 41 Lincoln Street, - Boston. RAIN COATS

Must have this Circular Trade Mark stamped in inside of coat.





Edited by HENRY C. PEARSON-Offices, No. 150 Nassau Street, NEW YORK.

Vol. XXVIII. No. 2.

MAY 1, 1903.

\$5 Cents a Copy. \$3.00 Per Year.

THE ALDEN RUBBER CO.,

BARBERTON RUBBER WORKS.

MANUFACTURERS OF

RUBBER GOODS.

The MASTER KEY Rubber Tiling.

Noiseless. Non Conducting. Non Slipping.

The ideal floor for Offices, Banks, Vestibules, Elevators and especially for places where electrical currents abound.

Beautiful Color Effects. Designs Furnished.

AKRON, OHIO and BARBERTON, OHIO, U.S.A.

Akron Office, Arcade Block-Main Office and Works at Barberton



THIS TRADE MARK GUARANTEES FULL VALUE.

AUTOMOBILE AND VEHICLE TIRES, HOSE, PACKING. VALVES. MOLDED GOODS. FRUIT JAR

BICYCLE.

RINGS. WHITE

TUBING.

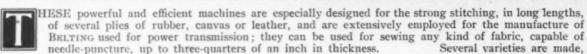
LONG DISTANCE TEL., AKRON EXCHANGE NO. 999.

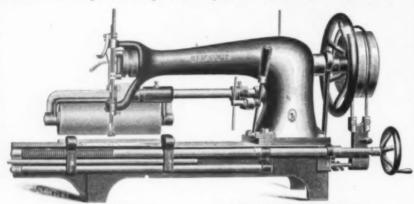
CABLE ADDRESS "ARCO AKRON."

LAMPBLACKS especially for RUBBER MANUFACTURE. SAMUEL CABOT, BOSTON, MASS

0 1 D E OF S U L H U R AND BI-SUL-PHID OF CAR-BON. GEO. W

E 106 Fulto





SINGER MACHINE No. 5-3 - - OPERATED BY MECHANICAL POWER

Several varieties are made, but all are provided with Adjustable Driven Feed-rolls which draw the material through Adjustable Guides and under a flat or a roller-presser as may be desired. The Feed-rolls may be driven by either a clutch or a ratchet, the latter method being employed in the machine illustrated. The extreme length of bed is thirty-two inches, the clear space on the bed from needle to base of arm is nineteen inches. The machines will stitch to the centre of a belt 38 inches in width. Two forms of guide are made and the machines may be fitted with either as desired; one form is arranged to

slide on a round rod, the other is operated by means of a screw, as illustrated above. The Shuttle is of the oscillating-cylinder type provided with very large bobbin, having great capacity for coarse thread.

Four varieties are made for making two parallel rows of stitching at once; each carries two needles in one needle bar and is provided with two shuttles. These machines are shown in practical operation at—;

NEW YORK, BROADWAY & PRINCE ST. PHILADELPHIA, 1210 CHESTNUT ST. BALTIMORE, II NO. CHARLES ST. CHICAGO, 260-267.

INDIANAPOLIS, IND., 126 WEST WASHINGTON ST. ST. PAUL, MINN.,

CHICAGO, 260-262 FIFTH AVE.
CINCINNATI, 115 WEST THIRD ST.
ST. PAUL, MINN., 402 JACKSON ST.

THE SINGER MANUFACTURING CO.

SALESROOMS IN EVERY CITY.

Mention The I vila Rubber World when you write.

BEST IN THE MARKET

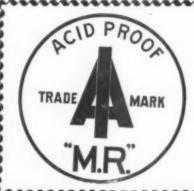
Cable's Carriage Cloth

New Factory Buildings. Prompt Shipments. New Machinery.
Samples Freely Furnished.

CABLE RUBBER COMPANY,

Factory and Office: JAMAICA PLAIN, MASS.

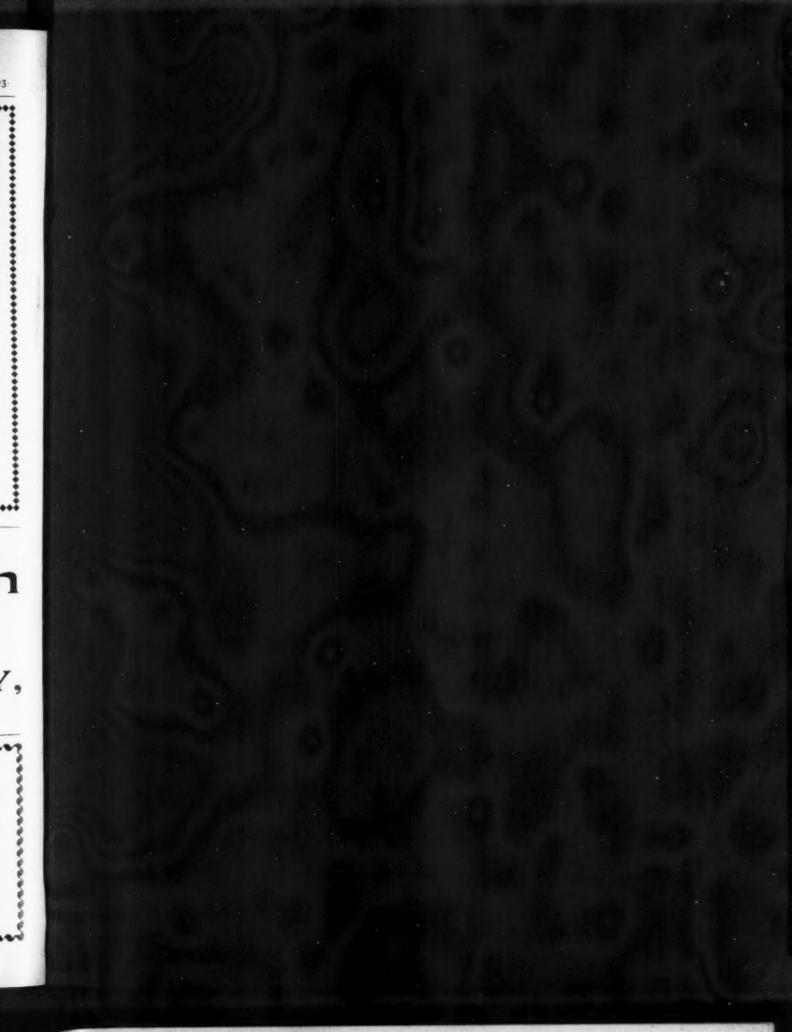
Mention The India Rubber World when you write.

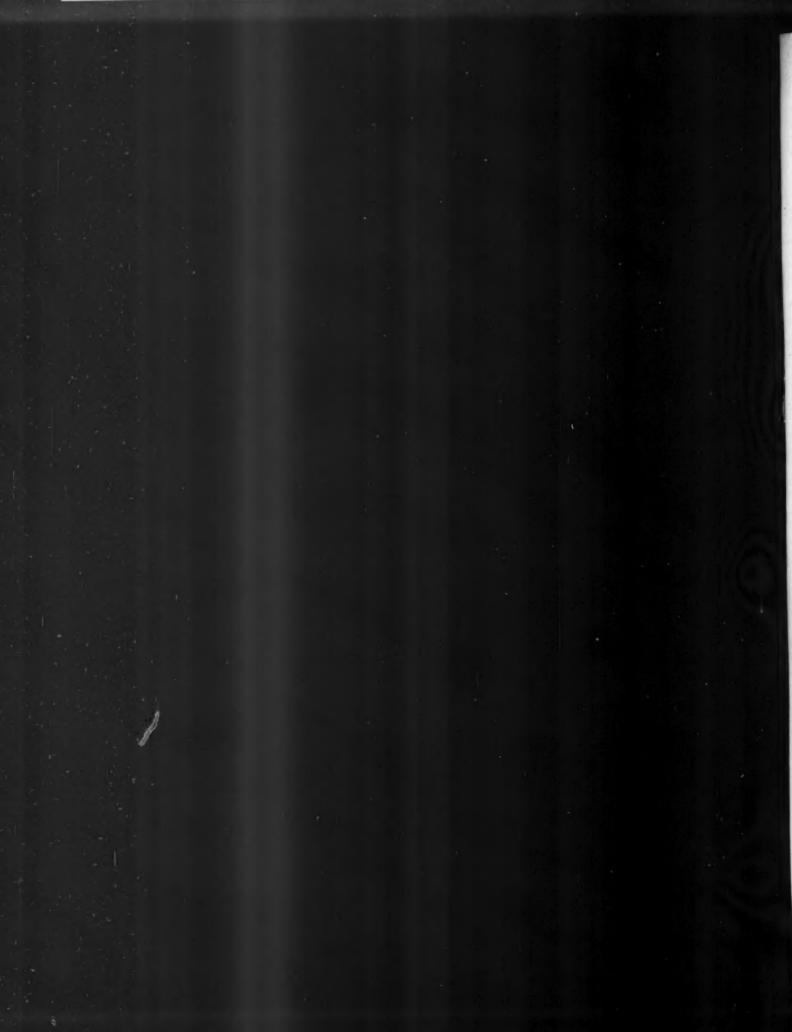


For General Compounding

"M.R." makes a perfect union with rubber. Prevents blistering, and the harsher action of free Sulphur. Absolutely acid proof. Has been used regularly by Rubber Manufacturers for the past three years.

GEO. A. ALDEN & CO., Boston, Mass.







Published on the 1st of each Month by

THE INDIA RUBBER PUBLISHING CO.

No. 150 NASSAU ST., NEW YORK.

HENRY C. PEARSON,

HAWTHORNE HILL,

DITOR.

ASSOCIATE.

Vol. 28.

MAY 1, 1903.

No. 2.

SUBSCRIPTIONS: \$3.00 per year, \$1.75 for six months, postpaid, for the United States and Canada. Foreign countries, same price. Special Rates for Clubs of five, ten or more subscribers.

ADVERTISING: Rates will be made known on application.

REMITTANCES: Should always be made by bank draft, Post Office Order or Express Money orders on New York, payable to The India Rubber Publishing Company. Remittances for foreign subscriptions should be sent by International Post order, payable as above.

DISCONTINUANCES: Yearly orders for subscriptions and advertising are regarded as permanent, and after the first tweive months they will be discontinued only at the request of the subscriber or advertiser. Bills are rendered promptly at the beginning of each period, and thereby our patrons have due notice of continuance.

COPYRIGHT, 1902, BY
THE INDIA RUBEE PUBLISHING CO.
Rntered at New York Post Office as mail matter of the second-class

TABLE OF CONTENTS.

Editorial: Criminal Compounding A Crying Evil and a Few Long Feit Wauts	PAG:
A Crying Evil and a Few Long Feit Wauts. Butter and Rubber—A Suggestion. The Stock Exchange and Business	21
Minor Editorial	2
Rubber Planting Enterprises	25
Rubber Planting on the Isthmus of Tehuantepec-I The Editor [From New York to the Mexican Border. Alkali Plains. Native Food Opals. Arrival at Mexico City. A Journey South of the Capital. Adventures at Achotal. On Horseback over Forest Trails. The Demarest, Newmark, and "La Ventura" Estates. [With Ten Illustrations and a Map.]	25
*	
The India-Rubber Trade in Great Britain Our Regular Correspondent	26
[Tire Litigation. A Question of Policy, Thre Notes, Standard Paris, Notes from Italy.]	
Gathering Rubber Underground	26
Rubber Goods Manufacturing Co	26
New Trade Publications	26
Automatic Measuring of Rubber Coated Pabrics [With Seven Illustrations.]	26
How Rubber Comes from the Congo (Illustrated)	26
Literature of India-Rubber	26
Recent Rubber Patents [American, British and German]	26
The Doughty Shoe Machine	27
The Obituary Record	273
Rubber Interests in Europe	278
India-Rubber Goods in Commerce	276
The Rubber Trade in Akren Our Correspondent	277
Miscellaneous: Laying the Pacific Rubber Cable	26
To Make Rubber Shoes in Munich Ficus clastica as a House Plant A Useful Rubber Code Mr. Pierpont Morgan's Retort	260 2 6 2 5 274
News of the American Rubber Trade	279
The Textile Goods Market	284
Review of the Crude Rubber Market	265

CRIMINAL COMPOUNDING.

A MANUFACTURER of hard rubber goods, whether in Europe or America it does not matter, was moved to discharge a foreman not long since for incompetence. The man left breathing "threatenings and slaughter," and the day following, the goods under the buffing wheels instead of being a smooth glossy black were filled with minute red specks. It was not until hundreds of dollars' worth had been spoiled that it was found that the lampblack was the trouble, that being mixed with red vulcanite dust. Naturally the manufacturer blamed the foreman and most bitterly, but the evidence was purely circumstantial and nothing could be done, nor could the sufferer himself be sure that his employer's suspicions were well founded.

Were this the only such case on record it would not be worth mentioning in these pages, but the story throws a side light upon a temptation that often assails workmen who are otherwise perfectly honest. The desire to prove to a former employer that things cannot run smoothly without his presence is the foundation of it, and that impulse, reinforced by a desire for revenge for real or fancied injuries, causes the man to become a criminal. Such a course is unworthy and foolish, and can never be aught but a cause for self reproach to the one who yields to the temptation. The world is small and the story of such happenings will leak out and follow one for years.

And just here comes in another phaze of the question that the manufacturer, although a sufferer, should in all honesty ponder. Rubber goods sometimes go wrong without any such aid. Were it to happen just after a man in charge of certain departments left, he might be suspected wrongfully and stay for the rest of his life under a cloud. All of which points to the importance to the worker of being so trusty as to be above suspicion, and to the manufacturer not to be unduly suspicious, and to employ men of character as well as ability.

A CRYING EVIL AND A FEW LONG FELT WANTS.

FROM the beginning of time the world has been full of "crying evils," and those who appreciated them have been equally conscious of "long felt wants," and as far as we are able to pierce the mists of the future such conditions will continue. It is of its application to the Indiarubber trade, however, that we wish to speak—not, perhaps, to the trade as a whole, but specifically to that division embracing the manufacture of mechanical rubber goods. In this line the evil is that of "dating ahead," and the "want" pluralized is a group of manufacturers who will put a stop to it—not collectively, but individually.

The dating ahead custom began some years ago in the marketing of \(\frac{3}{4}\)-inch garden hose, and in certain instances it has reached the stage where shipments in February or March are dated the September or October following. Now, under the pressure from buyers, the same evil is creeping into the sale of belting and other staple mechanicals. That this is not fair either to the manufacturer or

to the purchaser ought to be patent to both. It certainly is not just that the manufacturer should furnish capital for a large jobber or retailer unless he have a share in his profits, and the shrewd buyer should know that in the long run the interest that he saves on the amount involved is bound to be taken out of the goods; nor can he enjoy genuinely friendly relations with a man from whom he demands everything in sight. In other words, the shrewdest buyer on earth cannot get something for nothing all the time.

When dating ahead first began, conditions were somewhat different, for manufacturers were able then to purchase crude materials on just as long a time as the jobbers of their finished product demanded. As this passed the burden beyond the rubber manufacturers they were content, but even then it was not fair and was not good business. To-day manufacturers of raw materials, many of whom are in strong amalgamations, sell for "cash ten days," instead of on four months' time, and if the jobber doubts this, all he need to do is to try and buy cotton duck or litharge on time.

The remedy for dating ahead lies not in concerted action, nor in a slight depreciation in the quality of goods sold, but rather in each individual manufacturer taking the initiative, as if he were alone in the world and doing what he knows to be right and wise. If he be at all doubtful about the wisdom of calling a halt he has only to study the policy of some of the strongest and most successful manufacturers in his own line, who have long since eliminated dating ahead in everything they manufacture.

BUTTER AND RUBBER-A SUGGESTION.

HOSE persons who are inclined to think lightly-if they think at all-of the possible value of intelligent governmental aid to a common everyday industry might find something worthy of their attention in the history of the dairy interest of Denmark. That country is not adapted to the production of the great agricultural staples, and an important product of rural industry is butter. The limit of the local demand for this commodity having been reached years ago, the farmers essayed the exporting of their surplus, but at first without satisfactory results, for the reason that the butter lacked the firmness desirable for transportation over seas. The butter was good otherwise, however, and a scientific study was begun with a view to giving it greater firmness. This was a task beyond any one dairyman, and all the dairymen in Denmark working in concert might not have been qualified to solve the problem, which, finally, was worked out by a government commission. The solution was reached by experimenting with food for cows, the results being made known widely, in consequence of which the product of Danish dairies commands a higher price than any other butter imported into Great Britain-the greatest European market for butter. We do not know how much butter is exported from Denmark altogether, but Great Britain alone last year imported 190,739,584 pounds from that country, of the invoice value of \$45,269,944, or 23.7 cents per pound, yielding

about \$18 per head for the whole population of Denmark, the area of which is a little larger than Maryland, in the United States.

In every country where agriculture has progressed beyond a primitive state its followers owe much to the fruits of scientific investigation, even though the individual farmer may consider his daily practice a matter of course, or something which has suggested itself naturally to his ancestors. Not that all successful farming is due to the work of governmental institutions. Besides the discoveries resulting from the observations of individual intelligent agriculturists in every age, and communicated gradually to their fellows, there have been exceptional improvements in farming due to systematic study by exceptional men in this profession. England and the rest of the world owe much to the private agricultural experiment station at Rothamstead, in Hertford, where Sir John Lawes and Dr. Gilbert worked together for more than a half century in the study of plant foods and their absorption, leading to a new era of the understanding of the use of fertilizers. But two other such workers in this field may not appear again; besides, quicker results are now obtained through the scientific institutions maintained in the interest of agriculture in every civilized country. The United States, by the way, may be mentioned as being not behindhand in this field, with its sixty-two agricultural colleges, mostly with a public endowment, and its fifty eight agricultural experiment stations, also supported chiefly at public expense, engaged in investigations planned by their conductors, and also offering their services to the farmers of their respective districts. The liberality of the government toward these institutions has not been paralleled in any other country, and the high standing of American agriculture is due in no small degree to the work that has been done in them. The best kinds of grain and fruits and live stock have been discovered or developed, soils analyzed, new processes of culture introduced, and parasites studied and ways found to check their ravages.

But why should the government confine its benefactions to agriculture? This was natural while that remained our leading interest, but to-day it is largely exceeded in the money value of its products by manufactures. We hear, however, of no broad and general attempt on the part of the government to aid manufactures by scientific research. Manufacturers must still proceed empirically, guided only by their own experience and by what they can learn by chance of the experience of others. An exception is to be noted in the case of highly organized industries, like oil refining, where the consolidation of interests makes possible scientific experiments on a large scale. Of how much value such experiments have proved to the Standard Oil Co. most men have a vague and general idea. But where competition prevails, leisure and capital for such experiments in a large way are lacking. Industrial experiment stations, which would take the form of laboratories, might be established for all branches of manufacture that have reached a certain grade of importance, measured by the value of their product. The expenditure of thousands in this way might mean millions of

dollars in the increased efficiency of such industries as the leather, textile, or India-rubber manufactures.

The chemistry of India-rubber forms one of the most complicated fields of applied science. One might count on his fingers all the men in the world who have made extensive scientific research in this field and much remains to be known about the chemical properties and possibilities of Caoutchouc. Of course, a large number of facts related to these problems are known to every competent rubber factory superintendent, but scores of problems remain unsolved. If the government would establish a rubber laboratory with a competent head, its value to the trade, and so indirectly to all the people of the United States, might be very great. The rubber interest is surely large enough to be in a position to ask for such help from the government, and conditions are such that trade does not satisfactorily do the work for itself. This course would gradually substitute science for empiricism and certainty for guess work, and no rubber man has been so uniformally successful that he should not welcome such a

There is now being organized a new department of the government of the United States-that of Commerce and Labor, in charge of a secretary ranking as a member of the Cabinet-partly in recognition of a growing feeling among manufacturers that their interests were being slighted at Washington as compared with the attention given to the promotion of agriculture. While the first work of the new department shall be to consolidate and improve certain branches of statistical work carried on hitherto in various other departments, including the national census, a study of the act creating the new branch of the government shows its head to be empowered "to foster, promote, and develop the various manufacturing industries," by gathering and making available "useful information," and "by such other methods and means as may be prescribed by the secretary or prescribed by law." It would thus seem to be within the province of the new department, in its "bureau of manufactures," ultimately to create experimental stations which should extend to manufacturing interests such helps as the government now affords to agriculture. Under the generally broad authorization of the law, the secretary of commerce and labor can do very much what he chooses to do-provided appropriations are forthcoming. It is encouraging to hear that the new cabinet minister is desirous of making of his office something more than a mere statistical office, and doubtless practical suggestions from manufacturers bearing upon their needs would be welcomed by him.

THE STOCK EXCHANGE AND BUSINESS.

THE opening the other day of the new home of the New York Stock Exchange, now the largest and most costly and sumptous bourse in the world, is a matter of interest not alone to the brokers who do business there and their clients. Those persons who conceive of the stock exchange only as a place for speculative buying or selling, or where prices of shares are "manipulated" by

"insiders" at the expense of the unwary investor, see only an incidental side to an institution which exists only in answer to a wide and legitimate demand for a register of corporation values. The history of modern industrial development is the history of enterprise by means of joint stock companies, and the great readiness with which capital has been invested in such undertakings has been due to the growing facility with which such investments can be realized on.

With so much of the real wealth of the country held by corporations, large and small, the occasion is constant for buying and selling shares, just as the sale of real estate and other property individually owned is constant. And in order that every man who wants to buy or sell shares of a railway or manufacturing company may not be obliged to shop among his friends or even strangers for a chance to trade, and in order that something like established prices may prevail, and, above all, honest dealing, a recognized share market has become a necessity.

But the importance of the stock exchange extends further. The many owners of shares who do not want to sell are no less interested in knowing their real value than the much smaller number of owners who are sellers or buyers. Hence the daily reports of stock prices advertise to thousands and millions of people what each is worth in the way of corporation property, and, consciously or otherwise, owners of shares are thus influenced in their business plans, in the buying and selling of goods, in building for the future. The whole market cannot be influenced at once by manipulation, and a general decline in share values teaches conservatism in the matter of new undertakings, just as a rise suggests general prosperity and encourages increased efforts to expand businesses and industries. As the proportion of the country's wealth held by corporations increases, the importance of rightly reading stock quotations as a business barometer becomes greater, while interest in the effect of a "raid" on this or that stock becomes less.

The tendency of any stock exchange is gradually to require a higher standard, so to speak, of character for the securities admitted to trading privileges, and to give greater publicity to the facts regarding the condition of the companies represented by such securities. These tendencies, together with that of constantly getting nearer the real values of the securities, point to a time when trading in stocks will no more suggest speculation or "gambling" than trading in commercial commodities. Already the shares of many railways have been removed from the speculative list, and the reorganization of some more overcapitalized "industrials" will result in their securities being regarded in a different light than at present. The growth of the New York Stock Exchange, therefore, is worth considering as a factor in the commercial and industrial development of the country and the world, no matter if the opportunity does still exist in Wall street for the parting of the fool and his money. That was easy enough before stock exchanges were ever thought of.

THE FORTY MILLION DOLLAR BICYCLE TRUST has surprised no one by coming to grief. The financial world, by the way,

has not seen more kinds of failure comprised in the history of any large company based upon a legitimate industry. At one time a number of capable, forceful manufacturers, each a master of his trade, were making bicycles and selling them at a profit. There were also incapable men in the field, making bicycles and selling them at a loss. Then came a combination of practically the whole business, good and bad elements alike, in the hands of a board of directors and of high salaried officers, who stood too far aloof from their business to win success in it, had they been never so well qualified for their positions. The result was not unlike what might be expected in the case of a blind man who insisted on riding a wheel near the brink of a precipice. It is not enough to attribute the failure of the big company to a decline in cycling, for the "trust" may have assisted in that decline. When the bicycle first came into use it was not in response to any existing demand. The demand was largely created through the efforts of such energetic pioneers

as Colonel Albert A. Pope, who, having made a market, proceeded to supply it and to reap a profit from so doing. Bicycles are like most other things, in that they will not sell themselves. It is interesting to note that the gentleman named here, after having relinquished his business to the "trust," stands to day in possession of what has been left from the wreck of the whole trade. And there is reason to hope that the substitution of intelligent individuality for irresponsible control by a board will place the industry again upon a sound basis. The rubber trade can hardly fail to benefit from an increased demand, in years to come, for bicycle tires.

THE PHOTOGRAPHS OF MEXICAN VIEWS used in illustrating the letter from the rubber planting district on the isthmus of Tehuantepec, printed in this issue, were supplied by C. B. Waite, a photographer in the City of Mexico, and are protected by copyright.

RUBBER PLANTING ENTERPRISES.

BADGER MEXICAN PLANTERS' CO.

[Plantation near San Juan Evangelista, state of Vera Cruz, Mexico. Office: Racine, Wisconsin.]

NCORPORATED January 2, 1903, under Maine laws, to buy and cultivate for a second organization 10,000 acres of land on Trinidad river, to grow rubber and sugar. The land embraces a partially developed property, acquired from E. A. Dorman, and planted to rubber—now four years old—and coffee. A sugar mill will be erected this year, and considerable sugar will be planted. The officers are: William W. Allis, president Allis-Chalmers Co., president; Frank K. Bull, president J. I. Case Threshing Machine Co., vice president; Charles R. Carpenter, cashier Racine Commercial and Savings Bank, treasurer; Warren E. Fish, general auditor J. I. Case company, secretary. The other directors are Charles E. Tingley, Boston, Mass.; H. A. J. Upham, Milwaukee; Fred Carney, Jr., Marinette, Wis.; E. A. James, Chicago.

JOLIET TROPICAL PLANTATION CO.

[Plantation at Tierra Blanca, atate of Vera Cruz, Mexico. Office: Joliet, Illinois. See Тив Індіа Rusher World, February 1, 1903—раде 151.]

THE company announce that the sale of the 1200 shares first offered, beginning about September 15, 1902, was completed on February 12, 1903. Additional land having been purchased, 900 more shares were put on sale, making a total of 2100 shares, there being an undivided 1½ acre to each share. The price of shares is \$350. Development work began on January 1 last. The company hope to get 600 acres planted to rubber this year, with corn between the rows. Four sources of income are looked to for dividends while the rubber is maturing: (1) rent of laborers' houses; (2) rent of pasture lands; (3) profits from the company's store; (4) proceeds of the corn crop. Two thousand acres of pasture land are now rented. The present price of corn, of which two crops per year are expected, is equal to 60 cents per bushel, gold. Shareholders are not encouraged, however, to expect quick dividends or very large ones at first.

LA NUEVA PROVIDENCIA RUBBER CO.

[Plantation "La Nueva Providencia," department of Escuintla, Guatemala. Office: Providence, Rhode Island.]

INCORPORATED January 8, 1903, under Rhode Island laws; capital, \$20,000. Own 2000 acres, on which there are some wild rubber trees which will be tapped, and are now planting rubber from nurseries. The officers, all financially interested, are: Edwin H. Snow (president), of the important printing house of Snow & Farnham, Providence; Leo F. Nadeau (vice president),

fire insurance; Clyde E. Gardner (general manager), rubber and lumber merchant, Guatemala, with sixteen years' experience three.

UTAH-MEXICAN RUBBER CO.

[Plantation on the Mescalapa river, state of Tabasco, Mexico. Office: Salt Lake City, Utah.]

INCORPORATED April 11, 1903, under the laws of Utah; capital, \$100,000. This company has been formed on the recommendation of Noble Warrum, Jr., and Aquila Nebeker, after a visit of investigation to Mexico, where 10,000 acres have been purchased on a navigable river and near a railway. The purchase includes a large rubber nursery and it is stated that the first planting is now in progress. The officers are: John Henry Smith, president; W. S. McCornick, vice president and treasurer; and John A. McAllister, secretary. The other directors are Joseph F. Smith, Thomas R. Cutler, Frank Knox, W. B. Preston, J. S. Bransford, B. F. Grant, and John P. Hammond. Mr. Grant some time ago wrote to The India Rubber World enthusiastically in regard to the rubber planting outlook, after a visit to Mexico.

ROCHESTER-MEXICAN PLANTATION CO.

[Plantation "Las Lomas," on the river Coatzacoalcas, state of Vera Cruz, Mexico. Office: Granite building, Rochester, New York.]

INCORPORATED November 27, 1901, under New York laws; capital \$60,000. Purchased a plantation cleared and planted in 1899, to 120,000 coffee trees and 8000 rubber trees; 30,500 additional rubber trees were planted in 1902. Officers: Charles H. Angel, president; A S. Pendry (referred to as an expert tropical planter), vice president; John B. Snyder, secretary; John L. Zeeveld, treasurer.

THE OBISPO RUBBER PLANTATION CO.

[Plantation "San Silverio el Obispo," state of Oaxaca, Mexico. Office: No. 52 Broadway, New York.]

The report of the annual inspection of this property, made by Captain W. B. Porter, of New York, dated March 30, 1903, mentions the satisfactory growth of the rubber planted in 1901 and 1902 and states that Mr. Maxwell Riddle, the resident manager of the plantation, was planning to put 850 acres additional in rubber this season.

THE Trinidad Rubber Co. (Los Angeles, California), having a plantation under development at San Juan Evangelista, in the state of Vera Cruz, Mexico, have filed a certificate of increase of capital stock under their California charter from \$100,000 to \$200,000.

RUBBER PLANTING ON THE ISTHMUS OF TEHUANTEPEC.

As Seen by the Editor of " The India Rubber World."

FIRST LETTER.

Foreword—From New York to the Border—Over the Alkali Plains
—Native Food—Mexican Opals—The Nochistongo Canal—Arrival
at Mexico City—Journey South of the Capital—Adventures at
Achotal—On Horseback Over Forest Trails—The Demarest and
Newmark Estates—Arrival at "La Ventura."

Y journey to the Tierra Caliente, or "hot country," in Mexico, was taken with the sole object of seeing for myself cultivated rubber, planted by both individuals and stock companies. I selected typical plantations as far as I could, most of them in the state of Vera Cruz, on the isthmus of Tehuantepec. The states of Tabasco and much of Oaxaca and Chiapas I was forced to leave out of my itinerary, although they too have large and successful plantings, which I hope to visit later. I left New York quietly and alone, paid all my own expenses for the whole trip, and carefully avoided exploiting either myself or those who have shares or land to market. This statement seems necessary, because, since my return,

I have been asked in all seriousness whether this or that company had me "under its wing" to use later for advertising purposes. I wish also to add a word of thanks for the courtesy, the generous hospitality, and the frank, helpful cordiality extended to me by the planters whom it was my good fortune to visit. May I add that, of the conclusions drawn from my visit, while they prove to me that certain procedure in clearing, planting, care, etc., is vital in the localities under consideration, it

NATIVE HUT IN THE STATE OF VERA CRUZ.

does not follow that, given a different locality, soil, and climatic conditions, other methods might not prove necessary. I have chosen the narrative style for the relation of my experiences, as it is the easiest way to transcribe my notes, and I would say further that imagination has not entered at all into this chronicle, as it is in every respect the record of facts as I saw them.

In spite of an innate belief in my own preparedness for the Mexican pilgrimage, when ready to start I lost no time in consulting persons who had gone before as to material equipment for the journey. The advice received resolved itself into the purchase of a broad brimmed soft hat, negligé shirts, light flannel underwear, a "navy bag" (a dress suit case on horseback being a source of worry and a constant temptation to landing on one's head), and a pair

half clad Indian children who begged softly "un centavo Señor," and the placid care-free appearance of the railroad men, who had the air of having but little on their minds and no cause for hurry or worry-all in marked contrast to the hustling, bustling, atmosphere that is so much in evidence on this side of the border. After pulling out of Diaz we retired, slept soundly, and waked to breakfast in Torreon, 3700 feet above the level of the sea. It was a real Mexican breakfast, although cooked and served by Chinese, and eaten in a leisurely way that did not at all suggest a waiting train.

To digress a moment, when I say we, I refer to myself and whatever chance acquaintance I might at the moment be thrown with. As far as Torreon I had had three such—a sugar planter who left at St. Louis, an army officer home from the Philippines

of long legged moosehide "snake boots." To this was added, later, a Colts' revolver and holster, to be worn in the unsettled country south of the City of Mexico; a rubber poncho coat that looked like a long tan colored nightshirt, a linen suit, and, for medicines, a box of cascarets, a bottle of chloranodyne, and a pint of two grain quinine pills. Had I appreciated the pertinacity of the Mexican flea I should have added a blower and a pound or two of Dalmatian powder.

It was snowing when our train left Jersey City and started for the southland. Nor did winter really forsake us until we were well into the Indian Territory. As a matter of fact, I do not really think I realized that I was on my way to the land of the Castilloa until I awoke one morning and saw the dwarf cactus that grew by the side of the track, and further on, at San Antonio, Texas, began to note the picturesque Mexican costumes and the subtle differences in architecture, climate, and soil, that proclaimed our nearness to a land of strange peo-

ples, customs, and language. Finally we crossed the Rio Grande, drew up on Mexican soil, had our baggage examined by dark complexioned officials who were polite beyond belief, changed our money, getting \$2.58 for each \$1 of Uncle Sam's currency, and were at length in the land of the Aztecs.

THE border town where we made our entry is known as Cuidad Porfirio Diaz—the first word meaning "city." Here all was Spanish, or rather Mexican, the adobe houses, the



CANE FIBER RAINCOAT.



COCOA FIBER RAINCOAT.

who got off at San Antonio, and a young English mining engineer who was to establish himself permanently at Zacatecas. The last named was a nice fellow, but very serious withal, and responded with extreme reluctance to any attempted humor. For example, he had noted, as I had, the influx of Americans to the country, and said:

" By the way, those planters now, what do they raise?"

I replied: "The older ones, who are settled down, raise pineapples, cacao, and rubber. Most of the younger ones raise Cain.'

But don't any of the older ones go into the sugar business, too?" he inquired.

THE whole of the first day's ride on Mexican soil was through

a loft y plateau, very bare FIRST and dry, the DAY'S chief vege-RIDE. tation being the giant cactus. In spite of the closing of the car windows, the fine alkali dust sifted in, coating everything, and making it quite difficult to breathe. Toward evening we reached the mining city of Zacatecas, which is more than 8000 feet above the sea level. and where we were told that we should have difficulty in breathing, because of the rarefied at mosphere. As a matter of fact, none of us suffered the slightest inconvenience. We did suffer a disappointment in not being able to see the city, which lies hundreds of feet below the railway, but night had fallen and we could only guess

its location from the twinkling lights far below us. The next morning we passed through Queretara, where Maximilian was executed, and break fasted at Tula, a station some miles further on. Here we were introduced afresh to the staple articles of Mexican food, the tortilla and the frijole. The former is a flat cake of unleavened bread made of corn flour that tears like blotting paper and is about as palatable. It is made by the native women, who treat the corn first with a solution of lye to destroy the outer skin and then crush it on a little three legged stone table called a matate, by means of a stone mano or rolling pin. This, mixed with water, is baked, and is apparently much prized by the natives. The frijoles or Mexican beans are of two kinds, negros and blancathat is, black and white. To my palate the black ones are altogether the best, although I enjoyed both. The Mexicans are also very fond of meats which are cooked almost as soon as killed, and, therefore, apt to be tough. In their cooking they use a great deal of lard and make a greasy compound that a gringe stomach finds hard to digest.

I THINK it was at Tula that we got a first sight of Mexican opals. It is well known that almost every visitor to the land of the Aztecs has a vision of the purchase of opals at an exceedingly low price, and the best of stones at It was here that we all had our chance. Several dark hued vendors showed packages of stones that were beauties.

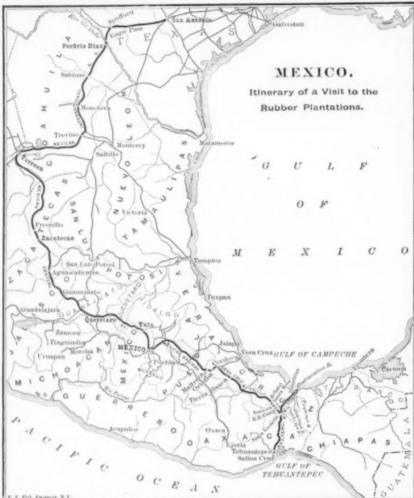
The asking price was high, however, and was lowered only when the train began to move. We all knew what this meant. A hurried assent the transfer of the coin and the package of opals, and the subsequent discovery that another package of less valuable stones had been deftly substituted. So we all refused to purchase. Did I say all? One shrewd Yankee watched his chance, made his purchase, and came back chuckling.

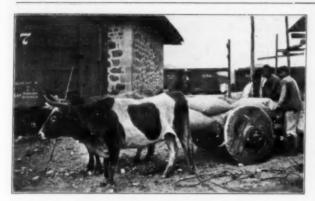
"I fixed that moso," he said; " I gave him four big Mexican cents instead of as many quarters." When he opened his packet, however, his face fell, for it contained only common pebbles.

A few miles south of this we had a fine view of the great Nochis-

tongo canal, which in some parts is 600 feet wide and 200 feet deep, begun back in 1608, as a drainage canal for the valley of Mexico. The railroad runs for miles by the side of it, and when one appreciates the fact that every bit of the earth was taken out in baskets on the backs of peons, the magnitude of the work is appalling. The canal was never completed, as there was an error in the levels amounting to about 40 feet, over which the water refused to run.

Soon after this the eternal snows of Popocatepetl and Ixtaccihuatl sprang into sight, and although few of the MOUNTAIN passengers pronounced either of the words correct-SNOWS ly, all seemed to be sufficiently impressed. We





PRIMITIVE MEANS OF TRANSPORTATION.

learned here that the former of the two mountains had been purchased by the Standard Oil Co., who are to work the vast sulphur deposits in the crater above the snows. The second volcano was exploited to us by a polite Mexican, who said that the Aztec name meant "the lady of the snows," and pointed out that the irregular peaks of this mountain, with their snowy mantle, took on the figure of a woman lying on her back with her arms folded. All the rest of the party said that the likeness was perfect, and to save trouble I agreed with them, but it really looked more like a couple of huge circus tents fresh from the laundry.

SHORTLY after this we reached the City of Mexico, took a carriage, drove to a hotel that was built in a hollow square, and

that had tiled floors, stuccoed walls, and rooms with-MEXICO out baths, unpacked our traps, sent out and bought soap, and spent two hours in making alkaline solutions from the various strata of dust that had settled upon our editorial person.

It was midday and hot, uncomfortably so in the sun, and just here I want to speak of the climate of the city, and then dismiss the matter forever. It may be all that is claimed for it by guidebooks and railway folders, at certain seasons, but it struck me as far from perfect. At night it was so cool that a heavy suit and a light overcoat were necessary, while in the middle of the day one yearned for pajamas and sandals. When one gets really chilly there seem to be but two places to get warm; one is the United States and the other the isthmus of Tehuantepec. There doesn't exist a fireplace, a stove, or any sort of heating apparatus in hotel or private house. Indeed the inhabitants of the city claim that such are unhealthy, and the result is that every stranger courts pneumonia, unless exceedingly careful. The city itself is beautiful, and has a chocolate colored policeman at every corner, a polite little chap who appreciates a tip or a good cigar, and who will do anything in reason for the well behaved.

I spent two days in the capital, and was very much impressed with its beauties. For a description of the buildings, customs, and places of interest, one need only turn to the many excellent guidebooks on sale everywhere. There are two points, however, which these publications do not touch upon. One is the very sincere and deserved admiration which visitors of every nation openly express for President Diaz, and another is the fact that American moneymakers, in a great variety of lines, are getting a very strong foothold in the city, to its marked benefit and to theirs.

LIKE any other tenderfoot, I had brought with me a lot of luggage which a closer view of conditions in the Tierra Caliente showed to be unnecessary. Most of this I left in the City of Mexico, and started forth early one morning, clad

in a summer suit, flannel shirt, broad-brimmed hat, with a Colt .38 strapped to my waist, and bearing for luggage a small bag and a Mexican blanket, I found the conditions on trains south of Mexico city radically different from those to the north. There were, for example, first, second, and third class cars, with no Pullmans. The first class car might have been a baggage car for all the luggage that the passengers had, and it might have been a smoking car for the way in which both sexes smoked cigarettes; indeed, it might have been a barroom for the way that the train boy served native cognac and beer. My seatmate, a powerful Swede,

appreciated some of these Providences more than I did. As he was interested in rubber planting, and particularly as he understood Spanish, we became quite friendly, and before I knew it he was taking my trip right out of my hands. He verbally hustled me through Mexico, and by this time would have had me in Patagonia had I not put on the brakes.

The first part of the journey from the city, the road ran through enormous maguey plantations, from which Mexico's national drink, the pulque, is drawn. Then after miles of dusty plain, the road (near Esperanza) runs close to the mountain side, disclosing, some 4000 feet below, the little native village of Maltrata. Zigzagging round the mountain, tunneling through projecting rocks, clinging to the edge of awful precipices, the train curves and slides, until it finally gets down to the plain, and the powerful double headed locomotive which held it back stops with a veritable sigh of relief.

Leaving Maltrata, the course still continues down hill, following the windings of a mountain stream some hundreds of feet below, until we finally sight Orizaba, clothed in eternal snow, lifting its head high above all surrounding peaks, and to my mind far more beautiful and impressive than Popocatepetl or its sister summit, over which tourists rave. After a brief stop at the mountain hedged city of Orizaba, we left the train at Cordoba, where the Spanish of my traveling companion was most helpful in securing accommodation at a little Mexican hotel where we had a really good dinner and comfortable beds.

In the morning we took an early train over the Vera Cruz and Pacific road for Achotal, its terminus. Although the run UNSETTLED is not a long one, it takes from 6 o'clock in the COUNTRY. morning till I the following morning to make it.

That we were getting into an unsettled country was much more apparent than ever before, the cars being guarded by rurales (the native military police), and the passengers, both Americans and Mexicans, having the free and easy demeanor which characterized the early days of the Far West. The conductors and train hands were Americans, as were many of the



MAGUEY PLANTATION NEAR MEXICO CITY.



LOOKING DOWN UPON MALTRATA FROM THE TRAIN.

passengers, all going south and most of them interested in planting projects. As was natural, the Americans and English gravitated together, and I heard many interesting facts concerning the country and much concerning rubber planting. The verdict of those who were not directly interested in the business seemed to be that there was nothing in it, and that rubber trees could never be grown. Indeed, one passenger said flatly that he had been in the country a number of years, had never seen

a rubber tree, and didn't believe they could be grown anyhow. This did not seem to disturb the serenity of the planters, who didn't argue the matter at all, but let the others talk. passed a rather wearisome day on the train, stopping occasionally for meals and getting them served more and more in pioneer fashion. I had intended to stop off at Tierra Blanca, in the vicinity of which are large plantations, but learning that the men whom I most

at I o'clock in the morning, we reached Achotal, the train returning at once and leaving us standing on the platform of the only frame building in the place, the depot, which was promptly locked.

I am moved to tell of my experience at Achotal, not to deter the timid or comfort loving from venturing into this part of the country, but as a bit of history, for within a very few months it will cease to be a pioneer railroad terminal, with its tramps, its native workmen, its flourishing cantina, and will settle down as a safe, prosaic, Mexican way station. In fact this change was almost due when I was there, for track had been hastily laid and construction trains run down to Santa Lucretia, where it is to join with the National Tehuantepec railway. This construction train, by the way, we were to take some time about 6 o'clock in the morning, and after riding some 15 kilometers, I planned to stop at Santa Rosa, and thus reach a large private rubber lantation operated by an oldtime friend of mine.

To be left in a town like Achotal at 1 o'clock in the morning with the knowledge that it would be hard work to get a ROUGHING bed, is not a particularly cheerful prospect. One of my planter friends, Mr. W. L. Adams, of Ixtal, however, whom I shall always remember gratefully, piloted me across the muddy track, walked me over a narrow, springy plank which rested against a steep bank, and I saw fronting me the few palm thatched native huts which make up the town. En-

tering one of these we found that there was no room at all, every available space being taken by canvas cots and conscientious snorers. Leading me further up the hill, however, he forced his way into another hut, roused the owner, and finally secured for me a cot. This I took possession of and prepared to make myself comfortable, as had a half dozen Mexicans, each of whom had a similar resting place.

All were not asleep, however; in fact my nearest neighbor, a muscular young mozo, was just disrobing. While he undressed, his hat, which lay on the cot, showed that it was preempted. Everything was peaceful, the snores of the sleepers, the stamping of the horses outside, the grunting of the pigs that had come in the open doorway and were seeking what they could devour, and the scratching of the flea tormented dogs, being the only sounds of life. Breaking in upon all this peace came the big Swede, with a very substantial "jag" and took possession of the mono's cot, throwing his hat upon the floor, whereupon the native drew his knife preparatory to a pointed argument. Not that I cared particularly for the mono, or for the Swede, but in the interests of fair play I interfered, telling the latter that if he insisted upon taking the cot, the mozo should have mine, whereupon he went out with some grumbling, and wrapping myself in my blanket I went to sleep, feeling that I had done a good turn for a dark-skinned, downtrodden brother. I was not to rest long, however, for I was awakened by the reëntrance of the Swede, who came to inquire

> politely if the strangeness of my surroundings kept me from sleeping. I assured him they did not, and he departed satisfied and I dropped off to sleep again. Suddenly, however, I was awakened by the feeling that some one was looking me in the face and opening my eyes I saw the moso with his face about three inches from mine and his hand outstretched toward my breast pocket. I have forgotten just what I said to him, but it was most emphatic, and he



MOUNTAIN CLIMBING ENGINE.

wished to see were absent, I left that for a later visit. Finally, went back and lay down, while I, wrapping my blanket tightly about me, dropped into another doze, but not for long. Back came the Swede, with more of a "jag" than ever, and sat on the side of my cot and wished aloud that he had a place to lie down, so I got up and gave him my cot and went and sat in the doorway and smoked and thought.

A common "hot country" appellation for an agricultural laborer.



SNOW CAPPED ORIZABA.

At 5 o'clock I succeeded in getting some coffee, which greatly refreshed me, and at 9 o'clock boarded the construction train, which was made up of a wood burning engine, a boxcar for passengers, and two flat cars loaded with railroad ties, mozos and negroes. We crept along at a snail's pace over the temporary track, which was not ballasted and which had sunk almost out of sight sometimes in the clayey mud and sometimes slid a foot or two to right or left, threatening to

overturn the car. That this latter was no idle dream was indicated by several boxcars which we saw which had been tipped off into ditches along the side. We finally reached Santa Rosa and disembarked—that is, I did, and my cheerful planter friend, Adams, while all the rest went on. Santa Rosa station is not a large one, the only building there being a ruined hut of native build, that had been in use when the pioneer railway camp was there.

On the opposite side of the track, however, the land had been cleared and planted to Castilloa, a part of the Demarest estate, my first sight of the cultivated trees. They RUBBER were growing on a well drained hillside, in a rich, loamy soil, with a substratum of clay, and, although shedding their leaves, as they always do at the beginning of the dry season, they looked thrifty and healthy. My companion sent one of his men off through the forest to secure horses, and while he did that I drank in the beauties of that tropical scene. It was a glorious morning and everything possessed the charm of novelty. The huge forest

trees, studded with orchids and epiphytes, the marvelously dense growth where no clearing had been made, a growth of trees, vines, and climbers so thick that it would have been impossible to go ten feet through it without cutting one's way, the parrots chattering in the trees, the brilliant macaws flying to and fro, and the wealth of flowers big and little, held me spellbound. I was awakened from my revery by Mr. Adams, who led me up over the hill where lived the owner of the rubber trees, who welcomed us warmly, prepared an abundant meal and chatted most entertainingly about the country and its prospects.

After a siesta, the horses having come, we mounted and trotted gaily away; that is, Mr. Adams did, but as I had not been on horseback since I was ten years old, I felt anything but frivolous. A Mexican saddle, however, kept me within bounds, and very soon the trail entered the virgin forest and got so rough and muddy that the trot calmed down to a walk, much to my satisfaction.

I don't think I shall ever forget one



STREET SCENE IN CORDOBA.

where we had to cross a muddy ravine with steep, clayey banks on either side, or how I sat back as far as possible while the horse slid down to the bottom, and then suddenly reversed my position and got one hand tight in his mane while he scrambled up the other; nor will I forget how he tried to get out of the mud in the middle of the trail by walking close to the trees, and of my frantic efforts to keep him away from the spiney palms and numerous other

particular place in that road,

bristling projections of the forest. We finally emerged into the open, however, and as we came out my companion asked me how I liked it. I had by that time gotten into the spirit of the thing and was thoroughly enjoying it, so that I could conscientiously say, "first rate."

"Well, that's the worst trail around here," he replied; "I thought you might as well have that at the beginning."

THE rest of the ride was through a magnificent stand of cultivated Castilloa trees, planted on rolling ground, about nine feet apart, showing every evidence of intelligent care.

A About half an hour later we drew up at Newmark's RESTING plantation, which is known as "El Ritero," and is a private venture embracing some 400 acres of land, on which are about 50,000 rubber trees planted four or five feet apart in the rows. They looked finely, and indeed the whole place, with its coffee, bananas, etc., appeared to be most flourishing. Here I was treated to a small red banana about the size of one's thumb, that was the most delicious bit of fruit one can imagine. I now parted from Mr. Adams, and, being

taken in charge by Mr. Newmark, soon reached "La Ventura," and entered the house that was to be my headquarters during my stay in the Trinidad river district.

I had not seen my friend Harvey, the founder of this tropical enterprise, since we dined together at the Lotos Club in New York four years before. He was then yearning to shake the snows of the north from his feet and hasten back to the land where winter was unknown. I doubt if he believed that I would ever redeem my promise given then to visit him, and it was not for some time that I learned the cause for this scepticism. It seems that many northerners come to the City of Mexico-some venture to Orizaba and points easy of access further south, but few get as far as Achotal. Only a short time previous a well known New York lawyer arrived there at one in the morning, saw what he was "up against," boarded the train and started back, though within 10 miles of his destination, and that was why my host exclaimed:





" FICUS BENJAMINA."

THE INDIA-RUBBER TRADE IN GREAT BRITAIN.

By Our Regular Correspondent.

THE talk of the moment is on the forthcoming actions which the Dunlop company are bringing against Moseley's and the North British for alleged infringement of the beaded tire tread. It is said by the Dunlop company that the patent in question did not lapse early in March, as generally supposed, but that it forms part of the Welch patent, which runs until October, 1904. Up to now Moseley's have not made this tread, though they had an arrangement with Dunlop as to royalty should they have decided to make it; now they are making it and do not admit that any royalty is payable. A season's trade is evidently worth having, or one would bardly have thought that costly litigation would be justified in the case of a patent having little more than a year to run.

THE other day a professional man was making some very caustic remarks to me about the slackness of the British rubber manufacturer to develop new business. It A QUESTION seems that he had required a special article made of OF POLICY. rubber and that the various shops he had gone to were not disposed to consider the business. "This is what they do and then they complain about bad trade," was his remark. After a time, however, I succeeded in convincing him that the rubber salesman and the works behind him probably knew their business best, and that it was only reasonable that they should not jump at putting themselves to the inconvenience and expense of making one special article for which there was no general demand. I know one firm who made it a rule never to refuse an order of this kind, and I also know that other firms when approached on such business used to advise their customer to go to the firm who used to take up and lose on this class of order. Of course each case should be judged on its merits, but it certainly is very doubtful whether the policy of never refusing an order is in the long run justified by its results. Certainly as far as my experience goes the firms who leave odds and ends to their competitors have shown the best financial results.

A FRIEND of mine who has visited the recent automobile exhibition at Berlin tells me that what struck him as the greatest novelty in tires was the Lins patent detachable tread. This is a sort of grooved arrangement by which the tread can be fitted easily into the cover without necessitating any solutioning or vulcanization .-- Mr. Perry's article in the March issue of THE INDIA RUBBER WORLD with regard to the general displacement of solid tires in Paris by pneumatics has occasioned some surprise to English manufacturers. But it seems to be largely a case of circumstances, although it is generally supposed that the solid stands rough roads better than the pneumatic; yet it seems to be the case that in Paris this is not so, the flint gravel of the Parisian streets acting more injuriously on the solid than on the pneumatic. I am assured by an English manufacturer that similar circumstances do not occur in England, and that the supremacy of the solid tire does not, at present at any rate, show signs of being assailed. The New York Wheel and Rubber Tyre Co. having recently changed their title to the De Nevers Rubber Tyre Co., the warning as to confusion of title with another firm of transatlantic origin has now no significance. -- I hear that the Manchester Wedge-Tyre Co., Limited, of Pollard street, Ancoats, Manchester, have lately experienced an increased demand for their

tires, which have now had a sufficient time to prove their value.

THE question of standard parts and sizes of machines has, I believe, long been settled affirmatively in the United States,

and is now agitating our engineers. It has also come to the fore in connection with electrical instruments, in which the vulcanite manufacturer is interested. An English maker of vulcanite goods tells me that the electric business would be much easier and more profitable if the system of standard parts were adopted, and says he has hopes that this desideratum will shortly be a matter of fact.

My excuse for the perceptible shortness of this month's communication compared with what I usually write must be my absence from England in France and Italy. When I say that I am posting this from Monte Carlo, my readers FROM will recognize that India rubber factories do not loom ITALY. prominently in the geographical horizon and that the varied attractions of the place cannot be considered as incentives to scientific or technical writing. Of course there is a good deal of speculation in the purchase of raw rubber, but it is not exactly of the character associated with the tapis verb. Naturally, with the brilliant sunshine with which this spot is favored during so many months of the year, the macintosh is very little in demand, though rubber in the form of motor-car tires meets the eye at every point, cars of the most luxurious character being met with in rather too great numbers, considering the nar-

Some two years ago I sent THE INDIA RUBBER WORLD some notes on rubber manufacturing in Italy and I have nothing much to add on the present occasion. The number of works has not been increased, Messrs. Pirelli & Co., of Milan, if we leave out of account two small concerns, having practically the whole business in their hands. I had a pleasant conversation with Engineer Emilio Invernizzi, of the electrical staff of the Messrs. Pirelli, and he recalled the notice given in THE INDIA RUBBER WORLD of the firm's exhibit at the last Paris exhibition. The Institution of Electrical Engineers of London are visiting the works this week, the event being looked upon as of some importance. I was presented with a copy of the Italian edition of the descriptive booklet of the works specially prepared for the occasion, and I hope to give some extracts from it in my next correspondence.

rowness of the roads.

As far as I could judge by cursory glances at the shops exhibiting rubber goods in Venice and other towns, America is represented principally by the rubber boots and shoes of the Candee company, though I cannot say that I saw any of these goods in actual use. Turning from the particular to the general, there is abundant evidence everywhere in the north of Italy of the progress of manufactures and the increase of wealth, a necessary consequent of which must be a larger demand for rubber goods of all kinds. With, however, the protective tariffs imposed in accordance with Crispi's schemes for the progress of the country, there is not much chance of this prospective increase being satisfied by outside manufacturers, which is the same thing as prophesying yet further financial triumphs for the great Milan firm referred to above.

MR. H. H. HOLLAND has been appointed manager of the European depôt of the United States Rubber Co., in London, having gained no little knowledge of the trade through his association with the late John W. Knott, whom he succeeds.

GATHERING RUBBER UNDERGROUND.

OME experiments in rubber culture in progress in Africa may lead to the extensive growing of a class of rubber plants which, while little has been known of them hitherto, are already of commercial importance. It now appears that the Landolphia climbers supply a smaller proportion of the African rubber output than has been supposed. Whatthe French call Caoutchouc des herbes, and the Germans wurzelkautschuk (root rubber), is really what the natives in many districts have been collecting for several years, in quantities not suspected until recently. The latest scientific investigation of the sources of African rubber, however, confirm casual statements made from time to time by explorers and traders about rubber being obtained underground. An English physician, visiting missionary stations in Angola (Portuguese West Africa) twelve years ago, while on the Bihé plateau, inland from the seaport of Benguela, and among the headwaters of the Kwanza river, recorded in his notes :*

Rubber has to be dug for with hoes, only a small plant showing above ground, the roots, from which it is obtained, running along for many yards, about six inches below the surface, varying in size from a quarter inch to an inch and a half. These roots are beaten with wooden mallets and boiled in water; when the rubber dissolves out it is collected and formed into balls, mixed a good deal with woody fiber.

The United States consul in Angola had already reported, in

LANDOLPHIA THOLLONII

1891,† that about three years previously a new source of rubber had been discovered in the Bihé country, and he was given to understand that the great increase in rubber shipments from the port of Benguela which followed had been due to this discovery. From a hundred tons or so yearly, before that period, the Benguela that period the Benguela that period.

[From Industrie et Commerce du Caontcheuc.] that period, the Benguela exports continued to increase until amounting in a single year to 5,000,000 pounds. Mr. Frank Vincent, an American traveler, next contributed a note on the subject:

Governor Paula Cid told me that in the year 1887 the exports of Benguela took a sudden jump upwards, owing to the appearance in the markets of a new kind of India-rubber, which is extracted from the roots of a small shrub that grows spontaneously on the banks of certain rivers in the interior.

The British consul at Loanda in 1899 reported: "Angola rubber is said to come very largely from a small creeper which struggles over sandy soil or desert places, incapable apparently of other productions."

The above quotations state precisely what has been found to be true of rubber gathering, not only in Angola, but in parts of the Congo Free State, French Congo, and other districts in Africa. Years later the botanist Baum, traveling in the German possessions south of Angola, observed the collection of "root rubber" on which he reported fully, with photographs

of the various operations involved §—not for the interest of the curious, but to depict a considerable industry along the river Kunene. It is true that some of the earlier mentions of "root rubber" confused it with "Almeidina," a cheap gum exported in small quantities from the port of Mossamedes, in Angola, but not included in the customs returns of rubber shipments. The name "potato rubber," sometimes given to the latter, related to the appearance of the balls into which it was formed, and not to its source, though it did lead to the impression that it was dug from the earth as tubers.

The botanists are yet struggling with the nomenclature of this class of rubber plants, though agreed that they belong to the natural order Apocynaceæ and are confined mainly to two genera—Carpodinus and Clinandra. The Carpodinus lanceolatus is supposed to yield the greater part of the rubber known as "Benguela niggers" and Lower Congo "thimbles." Dr. David Morris says:*

The interesting point is that these are neither trees nor shrubby climbers, as other rubber yielding plants in tropical Africa. They are described as low plants with slender, semi-herbaceous stems one to two feet high, and white aromatic flowers. They are found in great abundance on the sandy expanses in the Kwango district south of Stanley Pool [on the Congo river], and from this region alone it is said that 500 tons of rubber are produced yearly. - - - Although the stems contain rubber, the larger share is at present obtained from the creeping underground stems (rhizomes). These are about an inch in diameter and the natives extract the rubber by rasping them in water and then boiling. In this way a large quantity of vegetable debris is taken up with the rubber and the quality is thereby impaired. - . - The discovery of these remarkable rubber plants shows how far we still are from knowing the full extent of the sources whence the valuable product may be obtained. It is possible that these new plants may be available for cultivation, and give returns earlier than other rubber plants. They could evidently be easily propagated by means of pieces of the rhizomes, and

although it would be necessary to destroy many of the plants to obtain the rubber, there is a probability that numerous pieces of the thizomes could be left in the ground to carry on the cultivation.

The native habitat of these plants is in certain wide stretches of country in interior Africa, not covered with such luxuriant forests as Sir Henry Stanley, for instance, has described on the upper Congo and



CARPODINUS LANCEOLATUS.

[From E. de Wildeman's "Les Plantes Tropicales."] per Congo, and under a much less humid climate. Herr Baum wrote that the "root rubber" district in the Kunene country was so devoid

^{*} Reality versus Romance in South Central Africa. By James Johnson, M.D. New York: 1893 P 107.

[†]Special Consular Reports. India-Rubber Washington: 1892. P. 435.

Actual Africa; or the Coming Continent. New York: 1895. P. 379.

[§] Der Tropenpflanzer, IV Jahrg. Pp. 475-480.

^{*}Cantor Lectures on the Plants Vielding Commercial India-Rubber. London: 1898. P. 34.

of water that the natives going thither to work had to carry water with them, returning when the supply was exhausted. Herr Schlechter states that the plants grow near Stanley Pool on such sandy—and therefore unfertile—soil as nowhere exists in Kamerun. It would appear, therefore, that these plants are adapted to regions not suited to the growth of Castilloa or Hevea species, and the planting of them thus far in Africa has been done on the same estates with the Ceará rubber (Manikot Glasiovii).

The latest business reports of several Belgian trading companies holding concessions in the Congo Free State allude to the rubber planting done by them. The company of the Plantations de la Lukulu report having planted 6000 Manihot trees and 8000 lianes (creepers), with 50,000 of the former and 12,000 of the latter still in nurseries. The Cie. Sucrière Europeenne et Coloniale report planting 22,171 lianes and 748 Manihot trees, besides other species. The Plantations de La Luki had planted 16,584 lianes and specimens of nine different rubber trees, and had several thousand Manihot plants in nurseries. As to the lianes planted, on account of the local names being used, it is not clear what is the species. The first named company mention planting "malumbo," which, by reference to Hallier† would indicate some variety of Landolphia. The other two companies, however, report the planting of "lombo,"

† Ueber Kautschuklianen und Andere Apocyneen. Hamburg: 1900,

which suggests the Clitandra, a genus of "root rubber" plants. The companies referred to are operating in the Mayombe country, on the lower Congo—immediately north of the district in Angola previously referred to.

It may be noted that all of the species of Landolphia are not of the giant creeper class, but some are included among the plants producing "Caoutchouc des herbes," or "root rubber." Such a plant is shown in the illustration, accompanying this article, of Landolphia Thollonii. The other illustration relates to Carpodinus lanceolatus. By the way, in the present confused state of the nomenclature of African rubber yielding species, the same plant is referred to as Carpodinus by one writer and Clitandra by another, and possibly as Landolphia by a third. Herr Hallier, in his monograph on the Apocynacea, after a comparison of all the data accessible, recognizes 21 established species of Carpodinus, 15 of Clitandra, and 20 of Landolphia. It need occasion no surprise, therefore, if different observers, under different conditions, should apply different designations to the same plant.

It is plain that with the extensive production in the districts alluded to in this paper, the total exhaustion of "root rubber"—without replanting—is inevitable. In this connection the decline which has occurred already in the exports from Benguela is significant, the figures showing only 1,034,605 pounds for 1902, against 4,942,148 in 1898.

RUBBER GOODS MANUFACTURING CO.

HE fourth annual meeting of the stockholders of the Rubber Goods Manufacturing Co., incorporated under the laws of New Jersey, was held on April 9, at the registered offices of the company in that state, No. 60 Grand street, Jersey City. The annual report of the president, Alden S. Swan, presented in printed form and read at the meeting, follows in full:

It is with great pleasure that I report the results of the business of your company during the past year and as near as possible to March 31. They have proven the most satisfactory in the history of the company.

Our allied companies show an increase in business up to the time of the Chicago strike, which lasted about three months. This interfered with our sales. Nevertheless, the total results are very satisfactory and compare favorably with previous years. Mr. Charles H. Dale has assumed the presidency and management of the companies doing a mechanical

business, and Mr. Lewis D. Parker also president and manager of those companies manufacturing tires, and the sales for the three months ending March 31, 1903, are in excess of the corresponding period of last year.

The financial statement is accompanied by a certificate from the company's auditors, Messrs. Bragg & Marin, chartered accountants, to the effect "that the various inventories of the constituent companies have been taken upon a proper and conservative basis. That the bills and accounts receivable have, in every instance, been taken at a valuation which insures that at least the amount at which they are taken will be realized in the due course of business."

BALANCE SHEET.

[In the report as presented, all statements referred only to the last business year. But for convenience of comparison, the figures for the previous three years are here included, as shown in the respective annual reports. For a fuller understanding of the earlier figures, reference is made to The India Russer World of May 1, 1908--page 242.]

	ASSE	TS.		
	Mar. 31, 1902,	Dec. 31, 1901.	Feb. 1, 1901.	Feb. 10, 1900.
Cash	\$ 56,619 36	\$ 74,323.07	\$425,746.42	\$318,246.72
Mortgage notes (for property sold)	31,000.00	15,000.00	******	******
Accounts and bills receivable	205,537.13	876,856.83	45,585.19	765,589.51
Treasury stock at cost		292,443.00	******	******
Furniture owned	121,026.80	110,856.05	*** ****	****
received to date	24,808,279.69	24,928,646.83	1,271,783.77 25,141,149 09	557,297.04 22,129,732.28
Total	\$25,222,462.98	\$26,298.125.78	\$26,884,264.47	\$23.770,865 55
	LIABILI	TIES.		
	Mar. 31, 190n.	Dec. 31, 1901.	Feb. 1, 1901.	Feb. 10, 1900.
Bills payable (for money borrowed)	8	\$ 450,000 00	\$	\$
Accounts payable, to allied companies	****	597,326 42		
Accounts payable, to others		53,657.44	***** **	******
Deposits by companies			405,317.33	
Preferred stock	8,051,400.00	8,051,400.00	8,051,400,00	7,621,300.00
Common stock	16,941,700.00	16,941,700.00	16,941,700.00	15,134,000.00
Total	\$24,993,100.00	\$26,094,083 86	\$25,398,417.33	\$22,755,900.00
SURPLUS	\$229,362.98	\$204,041.92	\$1,485,847.14	\$1,014,965.55

INCOMES AND DISBURSEMENTS. FIFTERN MONTHS ENDING MARCH 31, 1903. Balance brought over from 1901	The figures given in the preceding column are compared be- low with the corresponding details in the former three annual				
Income from dividends declared by allied companies for	reports of the company:				
15 months 1,570,402 64	RUBBER GOODS MANUFACTURING CO.				
Total\$1,774,444.56	Income from dividends declared by constituent companies:				
Interest Account—Excess of payments over	1899 \$ 644,624.83				
receipts for 15 months \$ 47,482.77	1900 1,301,609.73				
Expenses paid for 15 months 142,674.95	1901 1,362,824.00				
Charged off, loss on properties, contracts,	1902 (to March 31, 1903) 1,570,402.64				
guarantees, and for depreciation 650,426.36	Interest account:				
Total expenses, etc	1899—Excess of receipts \$37,880.11 1900—Excess of receipts 25,561.80				
Net income. \$ 933,860.48 Five Dividends paid to March 31, 1903, Preferred 704,497.50	1901—Excess of payments				
Balance of Income over Expenses and Dividends paid \$ 229.362.98	* Gross earnings, 1899				
BARNINGS OF CONSTITUENT COMPANIES,	Do 1901 1,898,964 50 Do 1902 2,103,377.80 \$7,738,293.1.				
Net Unapplied Earnings, as per previous report \$661,317.58 To which add losses taken over and charged off by the	Charged for depreciation of plants :				
Home Office 59,865.12	1899\$ 25,842.85				
	1900 198,921.78				
\$721,182.70	1901 201,910.78				
Net Earnings of the Companies for the year 1902 \$2,252,954 45	1902 536,253.63 \$962.929.04 † Charged off for sinking fund :				
Charged off:	1899 \$45,449.05				
For Maintenance and Re-	1900 50,737 99				
pair \$149,576 65	1901 50,467.99				
For Depreciation 536,253.63 685.830 28	1902 50,209.24 196,864.27 \$1,159,793.30 Net earnings for four years \$6,578,499.84				
\$1,567,124.17	From which there has been appropriated for additions to				
From the above there has	plants				
been set aside for Sinking Fund:	Leaving a balance of				
For Bonds	Out of which dividends have been declared: 1899				
Leaving a Balance of 1,449,749 42	1901				
Making a Total of \$2,170,932.12 Out of which Dividends have been declared for the period	Net unapplied earnings \$432,343.36				
of 15 months, ending March 31, 1903	To which add losses taken over and charged off by the Home Office				
Net Unapplied Earnings, exclusive of operations of allied	Net unapplied earnings \$492,208 48				
companies for the 3 months ending March 31, 1903. \$ 492,208.48 Less amount owned by Stockholders other than the Rubber Goods Mfg. Co	Net unapplied earnings \$492,208 48 Less amount owned by stockholders other than the Rubber Goods Mfg. Co				
Net Hamplied Fernings belonging to the Pubber Coods	Net unapplied earnings belonging to the Rubber Goods				
Net Unapplied Earnings belonging to the Rubber Goods Mfg. Co	Míg. Co. \$469,602.26 [* After deducting cost of repairs and maintenance of plants. † For bonds of New York Belting and Packing Co., Limited, and Mechanical Rubber Co.]				
Of the above Dividends					
There was paid to Stockholders other than the Rubber Goods Mfg. Co	In the current report the total sales by the allied companies are reported at \$13,364,090 for 1900; \$14.348,048 for 1901; and				
Salance paid to Rubber Goods Mfg. Co \$1,570,402.64	\$13,999.329 for 1902.				
THE NEW DIRECTORATE.	JAMES B. TAYLOR, No. 30 Wall street, New York. Of Talbot J. Taylor & Co., bankers. Director Mechanical Rubber Co.				
THE annual election for directors resulted in the choice of	Director New York Belting and Packing Co., Limited.				
he following, the first five named being reëlected: MIDDLETON S. BURRILL, No. 49 Wall street, New York. Of Zabriskle, Burrill & Murray, lawyers.	Director Goodson Graphotype Co. Director Jacques Cartier Waterpower Co. Director Robins Conveyor Belt Co.				
Director United States Rubber Co.	HARRY KEENE, No. 150 Broadway, New York.				
HENRY STEERS, No. 147 Avenue D, New York.	Director Mechanical Rubber Co.				
President Eleventh Ward Bank, Director Leather Manufacturers' National Bunk, Director Dubuque and Sloux City Rallroad,	Director New York Belting and Packing Co., Limited. Vice president Patent Title and Guarantee Co.				
Director New York and Boston Dyewood Co.	CHARLES H. DALE, No. 16 Murray street, New York.				
EDWARD LAUTERBACH, No. 22 William street, New York. Of Hoadly, Lauterbach & Johnson, lawyers. Vice president Manila Anchor Brewing Co. Director Safety Car Heating and Lighting Co.	President Peerless Rubber Manufacturing Co. President Mechanical Rubber Co. President New York Belting and Packing Co., Limited. President Fabric Fire Hose Co.				
Director Third Avenue Railroad Co.	President Sawyer Belting Co. Director Stoughton Rubber Co.				
ARTHUR L. KELLY, Providence, Rhode Island. President Mechanical Fabric Co.	LEWIS D PARKER, Hartford, Connecticut.				
	President Hartford Rubber Works Co. President Morgan & Wright.				
HENRY R. WILKENING, No. 30 Broad street, New York. Clerk of Talbot J. Taylor & Co. Director Mechanical Rubber Co.	President India Rubber Co.				
HENRY R. WILKENING, No. 30 Broad street, New York. Clerk of Talbot J. Taylor & Co. Director Mechanical Rubber Co. Director New York Belting and Packing Co., Limited.	President India Rubber Co. President Indianapolis Rubber Co.				
HENRY R. WILKENING, No. 30 Broad street, New York. Clerk of Talbot J. Taylor & Co. Director Mechanical Rubber Co.	President India Rubber Co.				

ERNEST HOPKINSON, No. 27 William street, New York.
Director The Motor Cycle Co.
CHARLES A. HUNTER, New Durham, New Jersey.

IRLES A. FIUNTER, New Durnam, New Jersey.
Assis ant to President and General Manager of New York Belting and Packing Co., Mechanical Rubber Co., and Peerless Rubber Manufacturing Co., in charge of manufacturing departments.
Vice President Fabric Fire Hose Co.
Director New York Belting and Packing Co.
Director Mechanical Rubber Co.

WILLIAM T. COLE, No. 68 Murray street, New York. Manager and director Fabric Fire Hose C

H. CARROLL WINCHESTER, No. 21 Park Row, New York.

The ten directors retiring were Alden S. Swan, William A. Towner, Albah Trowbridge, W. R. K. Taylor, Arthur Y. Whitman, J. Archibald Murray, H. W. Turnbull, Eugene Underhill, John B. Morris, and John Henry Hammond. Mr. Keene, who now enters the board, is a brother of James R. Keene, whose name has figured more prominently in the financial world, but the new director has won a reputation of his own for ability in the financial management of corporation affairs. Mr. Hopkinson, another new director, is a patent attorney of recognized ability, and particularly as an expert in tire and automobile patent litigation.

At a meeting of the directors on April 14 the following were elected officers of the company:

President and Chairman Executive Committee-CHARLES H. DALE First Vice President-TALBOT J. TAYLOR.

Second Vice President-ERNEST HOPKINSON.

Trebsurer-JAMES B. TAYLOR. Secretary-HARRY KEENE.

The general offices of the Rubber Goods Manufacturing Co., from May 1, will be located in the Postal Telegraph building, No. 253 Broadway, thus being in a more convenient position as regards the offices and stores in New York of the constituent

The boards of the Mechanical Rubber Co. and the New York Belting and Packing Co. are now identical, consisting of Charles H. Dale (president), Talbot J. Taylor (vice president), Harry Keene, Charles A. Hunter, and Henry R, Wilkening. The secretary and treasurer of both companies is J. W. Mc-Coomb, formerly head accountant of the New York Belting and Packing Co. Mr. McCoomb is also treasurer of the Fabric Fire Hose Co.

LAYING THE COMMERCIAL PACIFIC CABLE.

HE cable steamers Anglia and Colonia, owned by the Telegraph Construction and Maintenance Co., Limited, sailed from London on April 8 to lay the remaining sections of the Commercial Pacific cable, which will connect Honolulu with the Philippine Islands. The laying of the section between San Francisco and Honolulu-2413 miles in length, and made by the India Rubber, Gutta Percha, and Telegraph Works Co., Limited-was completed at the western end on January 1, 1903, and has since been in operation. The contract for the cable now to be laid was signed by the Telegraph Construction and Maintenance Co. and Mr. John W. Mackay, as president of the Commercial Pacific Cable Co. in July, 1902, a day or two before Mr. Mackay's death. The following are the distances (in nautical miles) covered by the cable route, though the length of cable is greater, to allow for slack in laying:

San Francisco to Honolulu	2,100
Honolulu to Midway Islands	1,160
Midway Islands to Guam	2,280
Guam to Manila; via San Bernardino Straits	1,372

It is expected that the cable will be laid to Manila by July 4. after which one more section will remain to be put down, to connect Manila with China, in accordance with the Commercial Pacific Cable Co.'s contract with the United States.

Total 6,912

The laying of the new cable will be begun at Manila-some time during this month, it is hoped-the steamer proceeding thence to Guam. The next station will be on Sand island, one of the Midway group. This is a barren spot, about 1/2 mile wide and 34 mile long, on which no living thing has ever been found. The cable company have sent there a staff of fifteen men, as the beginning of a colony, who will have to be supplied with food and drinking water from a distance. It is intended to convey a quantity of soil there, and ultimately to make Sand island one of the most beautiful spots in the Southern Pacific. The island will be fortified by the United States navy department. The final length of cable will be laid from this point to

The United States government has consented to the landing on the island of Guam of the projected cable connecting the Dutch and German possessions in the Pacific, and thence to the existing cable systems of the Far East. With these connections, added to the Commercial cable, naval officers expect that the little island will ultimately become an important port of call. It looks as if there will not long be any remote islands in the Pacific.

NEW TRADE PUBLICATIONS.

HE NEW YORK BELTING AND PACKING CO., LIMITED, have issued a new illustrated descriptive and priced catalogue of Mechanical Rubber Goods, which is the best of the many good catalogues which have come from this long established firm. Beginning with some account of India-rubber and its sources, the book contains information of general interest regarding the leading applications of rubber for mechanical purposes-machinery belting, steam hose, air brake hose, suction hose, fire hose, packings in many forms, tubing, rubber covered rolls, matting, tiling, and a long list of articles embraced under the heading of "mold work." The illustrations are particularly good, the arrangement of the matter is convenient, and the book concludes with a serviceable index. [51/4" × 81/4". 89 pages.] The same company issue a collection of prints, illustrating various applications of their Interlocking Rubber Tiling-for corridors of office buildings, steamships, banks, libraries, church aisles, kitchen floors, and so on-for each of which rubber possesses some particular advantages as a flooring material. The plates, eighteen in number, are printed in colors, indicating that the rubber tiling can be made attractive as well as service-The number of classes of rubber goods that lend themselves to attractive advertising is constantly increasing. 19" × 6".

THE DERMATINE CO, LIMITED (95 Neate street, London. S. E.) issue a 1903 edition of their Price List. In addition to cataloguing a very large number of applications of Dermatine, it gives a very full account of the properties of this material, and also a chapter on the sources and nature of India-rubber and Gutta-percha, as a substitute for which Dermatine is intended to be used. The book contains a good portrait of Mr. John Cooper, the managing director, who has been connected with the company for fourteen years, and the good arrangement of the publication recalls the former journalistic experience of this gentleman. $[6'' \times 9\%''$. 50 pages.]

CONSOLIDATED RUBBER TIRE Co. (New York) issue a booklet, rendered especially attractive by color printing, in which the Kelly-Springfield solid rubber vehicle tires are tersely but clearly described. Among other things, the book contains a compilation of the taking advertisements of this company that have appeared for some time past in the high class magazines, [3½"× 6½". 16 pages.]

AUTOMATIC MEASURING OF RUBBER COATED FABRICS.

HE automatic measuring of fabrics of all sorts, and incidentally for use in rubber factories, has been for some years a fruitful field of invention. The patents on measuring devices have averaged nearly one a month for the past five years, and apparently the end is not yet. It



FIG. 1

may seem invidious in such a multiplicity to single out one line for representation here, but reasons for such a choice will appear before we are through.

For some years the Curtis & Marble Machine Co. (Worcester, Massachusetts) have been giving attention to automatic measurers. In its simplest form the device consists of a meas-

uring roll, either one-half yard or one yard in circumference, which by a worm and tooth device turns a dial attached to its support. A nip-roll prevents the cloth from slipping on the measuring roll. Figure 1 shows such a device as arranged for attachment to the frames or top of a machine by flat feet. In this case the nip-roll is of wood. Another form, shown in Figure 2, works in similar fashion, but has an iron

nip-roll, and is arranged for attachment to upright posts. A third form, available when the nip-roll is for any reason objectionable, is shown in Figure 3. This device is especially used in woolen mills, where the goods to be measured are drawn through by hand. The measurer in this case is attached either to hangers or to posts. This form can be used not only where

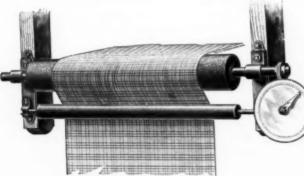


FIG. 3.

the goods are drawn through by hand, but also where power or a distant machine furnishes the propelling force.

All these measures are made in a great variety of form, as to

the point at which the dial is placed or the part of a machine where the device is attached. But all have the dials nicke

plated, either single, measuring 60, 75, or 100 yards, or double, measuring 2600 or 5100 yards. A simple push is all that is necessary to set the end of each roll. A clock dial measuring 1000 yards is also furnished where desired.

The data needed for the making of such a roll are as

FIG. 4

follows: Length of roll, circumference (¼ yard or yard), number of yards to be registered, whether the dial is to be placed at the right or left end of the roll and above or below the shaft, whether the top of the roll turns toward or from a person

facing the dial. Dials and worms are also obtainable to fit measuring rolls by giving in addition the size of the shaft to which the worm is to be fitted.

It sometimes happens that the construction or situation of a machine makes any such arrangement of the dial impracticable. In that case a pulley arrangement is available, with small belts to connect the dial in almost any

convenient position. When absolute accuracy is required, an adjustable device can be obtained in which the variable diameter of an expansion pulley makes accuracy possible. Figure 4 shows the way in which such a device is attached to a calender rolling machine. This device is used in many factories where goods are sold by the piece without remeasuring.

Sometimes it is desirable to measure above 5000 yards at once. To meet this demand a counting register (Figure 5) is attachable to measuring rolls. This register serves for measurements up to 100,000 yards.

Elastic fabrics are difficult to measure except by special machines that are fitted with adjustable tension, two forms



FIG. 5

of which are shown in Figures 6 and 7. In the simpler form shown in Figure 6, the tension is regulated by friction rods. Guide collars keep the ends of the rolls even, and the machine is adjusted to wind upon boards from four to nine inches wide

upon square bars, round rods or steel plates, which may be withdrawn when the roll is finished. The driving pulleys are eight inches in diameter, with a 2-inch face, and can be run

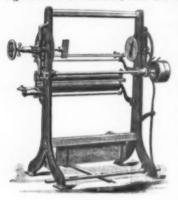


FIG. 6

at about 250 revolutions a minute, if desired. The register of measurement is on a dial set horizontally at the side of the machine and operated by a worm on the shaft of the measuring roll. The standard sizes are two, for % and 4 goods. The former will take fabrics up to 27 inches in width, while the other serves from that width up to 36 inches.

The more elaborate

machine shown in Figure 7 is needed for winding and measuring fine and light fabrics. The tension arrangement is similar to that of the other machine, and the measuring is done sub-

stantially in the same way... A hand lever, reinforced by a weight, holds the jaws in place and automatically adjusts them to any slight variations in the length of the boards. Jaws are obtainable fitted for cardboards, paper tubes and all other devices in actual use. Machines of this type are built up to a width of 72 inches.

The machines are so constructed that a platform containing the cloth to be measured



FIG. 7.

and wound can be rolled underneath without preventing the operation of the treadle by which work is started and stopped. An unrolling frame with a large apron is used in some cases where the fabric to be measured comes in large rolls. In that way the tension arrangement, of the machine has entire control of the feeding.

TO MAKE RUBBER SHOES IN MUNICH.

HE Aktiengesellschaft Metzeler & Co. (Munich) have recently taken up the manufacture of rubber boots and shoes on a large scale. The product has been thoroughy tested in their branch stores, as to fit and quality, during the past two years. The objective point, on entering into the shoe manufacture, was to produce an article equal to the best imported brands. The large consumption of foreign made shoes is proof that a demand for German made goods of good quality exists in the market. The shoes made by Metzeler & Co. are cheaper than those of Russian manufacture, and higher priced than the other German manufactures. The firm will certainly be supported by the dealers in its endeavor to produce, at fair prices, shoes that can compete in every respect with foreign The Metzeler firm now made goods .- Gummi-Zeitung .make rubber technical goods and asbestos goods.

"FICUS ELASTICA" AS A HOUSE PLANT.

THE story of the Texas man who tried to sell to a rubber manufacturer a rubber plant which, on inquiry, proved to be located in the southwest corner of his parlor, has become a classic in the rubber trade. Nor was he alone in his belief that the ornamental plants that have become so, common in houses have a commercial value. One often hears the owners of such plants speculating on the amount of rubber that could be secured by cutting into them. No doubt the supposition is common that somewhere in the world little ten-foot shrubs are cut down and by a more or less mysterious process turned into rubber. Or, on the other hand, it may be supposed that the plant is named not because it produces rubber, but because its leaves are elastic and rubbery in appearance.

Such ideas make rubber men smile, but even those who know most about rubber manufacturing and who can grade crude rubber with the greatest accuracy, have somewhat hazy ideas about our familiar friend, the house rubber plant. One of the leading rubber importers of the United States is willing to wager a good round sum that the common rubber plant is not Ficus elastica but Ficus australis. An investigation has been undertaken at various times and with various results, paragraphs having appeared stating that the plant is Ficus elastica, and that it is not.

The only way to settle such a matter is to take it to the supreme court and secure a definite statement of the characteristics which identify the species to botanists. A visit to the botanical garden of Harvard University and consultation there of such works as Bailey's "Encyclopedia of Horticulture," the "Index Kewensis," and Curtis's Botanical Magazine gives the following results:

Ficus australis is a name not now recognized by botanists, the correct name of that species being Ficus Rubiginosa. The species is also called Ficus ferruginea. The tree is a native of Queensland, but the name australis means "southern," and not " Australian." If the name had been intended to indicate its Australian habitat it would have been Australiensis, or perhaps Australia. Rubiginosa means "reddish" and ferruginea, "rusty." Both names refer to the reddish down that covers the under side of the leaves when young and that can be seen on the nerves of even the oldest leaves. The leaves of Ficus rubiginosa are never much more than four inches long and are marked by veins-not more than eight or ten pairs-which start nearly at right angles with the midrib, but recurve toward the base and end before reaching the margin. This plant is somewhat cultivated in conservatories, having been introduced to England by Sir Joseph Banks in 1789.

Ficus elastica has larger leaves than its cousin, glossy green all over on both sides. The leaves sometimes grow to the length of a foot. They are marked by many veins (fifty pairs or so) which run almost straight from midrib all the way to the margin, at right angles to the midrib. The leaves taper at the stem and have a sharp point at the tip, while those of Ficus rubiginosa have a rounded bottom and a blunt or even slightly indented tip. There is a variety of Ficus elastica (var. variegata) which has white or creamy edges. It is very beautiful, but is less popular than the standard variety because of its susceptibility to attack by parasites.

From what is written above it is evident that the rubber plant of our houses is the real thing, Ficus elastica—the rubber plant of India—modified by transference to the temperate zone. Here it does not grow to a height of 120 feet, and its aërial roots and stately habit must be left to the imagination; but botanically it is thoroughly characteristic.

HOW RUBBER COMES FROM THE CONGO.

WHY does so much India-rubber come out of the Congo Free State? In 1891, after the trade had been in existence for several years, the output was only 179,696 pounds. In 1901, there arrived at Antwerp alone 11,918,303 pounds of, Congo rubber-a sixty-six-fold increase in ten years. The Congo state has a large native population, but not of a character suited to the development of a great trade. The typical Congolese are small sized, not especially strong or enduring, lacking vigor, and wearing out prematurely under their natural privations and hardships; in many respects mentally like white children eight or ten years old, and with no inclination and little capacity to learn anything new; living in grass buts without furniture, going bareheaded and wearing only loin cloths, and with no thought of providing for to-morrow; the men interested chiefly in warlike pursuits, leaving to their plural wives-obtained by barter-the greater part of any work to be done in providing habitations or food.

Yet such as these - men, women, and children - ransack the dense forests of the Kasai and other great affluents of the Congo, to find here and there a Landolphia vine, which they destroy to obtain rubber, without any knowledge of what it is for or of its real value to the foreigner. Certainly no small inducement would lead hundreds of thousands of these simple forest folk to neglect their fighting and fishing and overcome their natural apathy to toil, to take up the strange business of gathering rubber and carrying it to market. Furniture and clothes and the like, such as are made for civilized people, would hardly appeal to them, money of any kind they could not use, and there is no evidence that these things are given to the natives in exchange for their rubber.

The Congo Free State in 1901 exported products (mostly rubber) valued at \$10,-097,680, and imported merchandise of the value of \$4,620,410, the excess of exports being \$5.477,270. That is, the exported commodities were worth more than twice as much as the goods sent up river to pay

for them. But the imports included railway and telegraph materials, steamers and other boats, iron buildings for military and trading stations, army and official supplies, and a lot of other things of no concern to the natives. For the latter there were cheap cloths, beads, trinkets, and the like-of trifling commercial value, compared with the millions of dollars worth of rubber gathered. If evidence is wanted of the low price of Congo rubber" in first hands," it is suggested in the gossip of the Brussels bourse, where the shares of the Belgian companies operating on the Congo are traded in. In July, 1900, a financial paper there estimated that one of the companies had marketed, during the preceding six months, about 800 tons of rubber, at an average profit of 4 francs per kilogram [=35 cents per pound]. At any rate, the company referred to made a profit that year (mostly on rubber) of 487 per cent. and its shares were quoted on the bourse at sixty times their par value. There have been operations planned on the Congo with the idea of realizing a profit on rubber of 6 trancs per kilogram =521/2 cents per pound]. Considering the high rate of transportation, it is clear that, with such profits for the traders, the

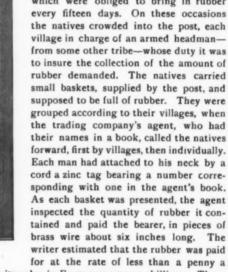
reward of the rubber collectors must be very meager. Then why do the natives gather so much of the stuff?

The above considerations are not derived from a certain book now attracting attention in Europe,* but the book is noticed here because its authors assert so strongly and so circumstantially the truth of the rumors frequently heard in the past of atrocious cruelties practiced upon the natives by agents of the state and of the monopolistic concessionary companies. By way of introduction, the joint authors of this book, Captain Burrows and ex Lieutenant Canisius, point to their long service of the Congo state, and that of the latter subsequently with a trading company, both as a certificate of character and as proof of their opportunity for witnessing what they here describe. To sum up their testimony, the Congo natives do not "tumble over each other in their eagerness to bring in rubber," but it is "a question between death by slaughter or starvation."

Canisius, who spent several years in the service of a Belgian trading company, gives a detailed account of the collection of rubber at one trading post, under a system which he asserts prevails throughout the state, and from which the next paragraph

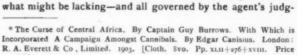
is condensed:

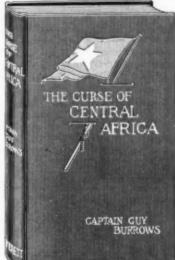
There were in the vicinity of the post of N'Dobo a dozen villages, the people of which were obliged to bring in rubber



pound, though its value in Europe was 2 or 3 shillings. Those natives who had brought in quantities which the agent deemed insufficient were ordered to one side, seized by native "soldiers" attached to the post, thrown to the ground, and soundly flogged -25 or 50 or 100 lashes-with a heavy whip of hippopotamus hide. This proceeding was repeated until all the villages had been dealt with, when the natives started off for home, usually at a brisk trot, as if glad to escape with their lives. They, of course, carried with them their baskets and their brass wire, which they did not want but were forced to accept. The post manager had accumulated perhaps 1000 pounds of rubber, at a cost of about £4 [=\$20], including presents to the chiefs and

Thus was rubber "gathered" twice each month at N'Dobo. So many brass wires for so much rubber; so many lashes for





THE SUPPRESSED CONGO BOOK.

ment, without anything being weighed. At some posts, it is asserted, the agents have entrusted to the headmen merchandise to be exchanged for rubber, but the headmen usually appropriated the goods to their own use, taking the rubber without any payment whatever. Some such headmen had thus become able to own dozens of wives and many slaves.

According to the same author, the victims of this system have to search far and wide for the rubber vines. One having been found, the native first attacks it near the ground, and after no more sap can be gained there, he climbs into the supporting trees, often remaining on the lofty perches all day, and sometimes sleeping and falling to the ground, with a fatal result. Too frequent tapping soon kills the vines, when the natives of one district invade another, the people of which may be themselves hard pressed to find rubber, causing constant quarrels and worse disturbances. As a result of the enforced labor-every village being required to supply definite amounts of rubber-it is asserted that in many places the natives have ceased to grow any food, for the lack of time, but now live "like wild beasts in the forest, subsisting on roots, and ants and other insects."

But half of the horrors in this book are not even hinted at above-how refractory natives are tortured, mutilated, and even put to death, and whole villages destroyed, for no better reason than that their people have not brought in enough rubber. For this whole condition of affairs the authors of "The Curse of Central Africa" indict the Belgian government-the real power in the Congo Free State-under whose rule the best rubber districts are completely monopolized. "Neither in the Domaine Privé," says this book, "which includes nearly all the rubber producing regions not gifted away, for considerations, to the concessionaires, nor in the territories handed over to the latter, can an independent trader buy a pound of rubber or an ounce of ivory, or sell a spoonful of beads or an ounce of brass wire. The state fixes the prices of the products which the natives are compelled, at the mouth of the Albini [rifle], to bring to its posts; and it is scarcely necessary to add that the price so fixed is absurdly near to nothing. The close relation of the state to the companies is shown in the fact that the former holds half the shares in many of the latter, sharing in the large profits. Besides, the natives must pay a head tax "in kind," which makes the government itself a large handler of rubber.*

The statements in this book are stoutly denied in Belgium. Before it was printed in London steps were taken by certain persons mentioned in the manuscript to prevent their names from appearing in the book, and already libel suits against the authors and publishers are pending in the English courts. It may be, therefore, that the facts will thus be brought to light. Meanwhile the book has been withdrawn from the trade. As for the authors, they take pains to prove that they were not discharged by the Congo state, but served their full enlisted terms, and even entertained suggestions with regard to continuing in the service. It would have been better for their reputations as men, if, after such experiences as they report, they had resigned their offices. Their book would then have commanded more respect.

OCTAVE J. A. COLLET writes to the Journal d'Agriculture Tropicale reporting the recent shipment from Borneo of 60,-000 Gutta-percha plants, of which 20,000 were for Dr. Preuss, director of the German botanic garden at Victoria, in Kamerun, and the remainder for the Belgian companies "Abir," "Lomani," " Luki," and " Lukula " for planting in the Congo state.

LITERATURE OF INDIA-RUBBER.

N a previous mention of the Brussels journal, Industrie et Commerce et du Gutta Percha, it was referred to as the second of its class to appear in the French language, whereas it really was first to become public. This is a handsome appearing journal, published each month, and, in addition to practical articles on the industries indicated by its title, it contains much original matter of merit relating to the sources of the raw material, particularly in the countries in which Belgian and French capital is interested. The March issue treats of a new vulcanizing press, rubber reclaiming processes, the drying of washed rubber, and a technical description of an important Landolphia species, besides minor articles and a full review of the crude rubber market. Many of these articles are credited to other journals, but they appear here for the first time in a form available for those whose reading is confined to French.

No. 3 of Le Moniteur du Caoutchouc (Brussels) is devoted mainly to topics bearing upon raw Caoutchouc and its sources, of which the one which will appeal most to manufacturers is a table of shrinkages of Congo sorts, by the conductor of the journal, M. Van den Kerchhove. The first installment appears of an article on rubber collection on the Kasai river, in the Congo state.

IN CURRENT PERIODICALS.

NOTE sur les Lianes du Laos. By Dr. C. Spire. = Bulletin Économique, Hanoi. V-12 (December, 1902.) Pp. 853-861.

La Culture des Plantes a Caoutchouc en Nouvelle Guinee. By. W. Kolbe. [From Der Tropenpflaftser. VII-2] = Revue des Cultures Coloniales, Paris. XII-121 (March 20, 1903) Pp. 176-179.

Ule's Expedition nach den Kautschuk Gebieten des Amazonstromes. By Ernst Ule. [Third installment; relates to Hevea species on the river Juruá]= Notisblatt des Königliche Botanischen Gartens und Museums zu Berlin. III-30 (March 15, 1903). Pp. 224 237.

Rendement de l'Hevea sur le Rio Beni. By Paul Cibot. [Continued; details of yield from tapping in various quarters] = Journal d Agriculture Tropicale, Paris. III-21 (March 31, 1903.) Pp. 67 70.

Le Funtumia elastica ou "Silk Rubber" du Lagos. By Émil De Wildeman. [Considerations favorable to its culture in West Africa.] =Revue des Cultures Coloniales, Paris. XII-122 (April 5, 1903.) Pp. 193.196.

Landolphia Klainei (Pierre). By Émil De Wildeman, [Description of an interesting rubber yielding species found in the Congo Free State.] = Industrie et Commerce du Caoutchouc et la Guttapercha, Brussels. I-3, March, 1903. Pp. 57 60.

OTHER PUBLICATIONS RECEIVED.

HAND BOOK OF THE FEDERATED MALAY STATES. Compiled by H. Conway Belfield, British Resident at Selangor. London: Edward Stanford, [1903.] [8vo. Pp. 1v+170+plates and maps. Price, 2 shillings 6 pence.]

A VERY practical work, full of information for all classes likely to be interested in the progress of and the opportunities for work and investment in a region, the great development of which, under British rule, was referred to in this journal last month, in an article on rubber cultivation. Numerous references to India-rubber and Gutta-percha appear in the book. There are maps of the Federated States as a whole and of the states separately, and several good views from photographs.

A HANDBOOK OF PERU FOR INVESTORS AND IMMIGRANTS. WITH a Description of the Central Route (region of the Pichis.) [12mo. Pp. 54+ plates and maps.]

THIS is a translation into English, from an official publication issued at Lima, by Señor F. A. Pezet, secretary of the Peruvian legation at Washington, where copies can be obtained on application. It treats in part of the rubber resources of Peru, with photographs of rubber extracting processes, and includes the regulations governing concessions of rubber lands.

The budget of the Congo Free State for 1903 includes an item of 16,440,00 francs [=\$3,172,920] of taxes to be paid by the natives "in kind," most of which will be rubber.

RECENT RUBBER PATENTS.

THE UNITED STATES PATENT RECORD.

ISSUED MARCH 3, 1903.

N O. 721,722. Stopper [and nipple combined] for nursing bottles. William H. Morton, Portland, Maine.

721,813. Life preserver. Icilius W. Maccolini, Long Island, New Vork.

721,948. Doll [of elastic and inflatable material, with sound producing device]. William A. Gay, Terryville, Connecticut.

721,963. [Hollow rubber] pad for hernial belts. Florentin Matuchet, Paris, France.

721,985. Hose coupling. Absalom B. Wells, Washington, D. C. 722,013. Fountain pen. Robert A. Hamilton, Brooklyn, New York.

722,164. Fastening device for [solid rubber] vehicle tires. Frank P. Stone, Chicago, Illinois.

ISSUED MARCH 10, 1903.

722,337. Elastic tread horseshoe. Herbert D. Traveller, Chicago, Il-

722,339. Protecting band for pneumatic tires [inserted between air tube and outer cover]. John Wheeldon, Sheffield, England.

722,350. Teething nipple [consisting of an elastic bulb, elongated at one end]. Frank B. Anderson, Davenport, Iowa.

722,352. Weather strip. Leo A. Bartel, Sidney, Ohio.

722,376. Pneumatic tire. Joseph G. Moomy, Erie, Pennsylvania, 722,377. Pneumatic tire. Joseph G. Moomy, Erie, Pennsylvania.

Tire for vehicles [Made by applying to a mandrel in the form of a closed ring alternate layers of unvulcanized rubber and a suitable braided fabric, and vulcanizing the whole.] Oscar Schaefer, London, England.

596. Bottle stopper head [involving a rubber gasket]. George Limbach, New York city.

722,600. Pneumatic tire. Edwin Midgley, London, England.

722,612. Tire for wheels of road vehicles Berne Nadall, Kingstonupon-Thames, England.

ISSUED MARCH 17, 1903.

722,819. Syringe. William M. Decker, Buffalo, New York.

722,822. Mechanism for manufacturing rubber shoes. Henry J. Doughty, Providence. Rhode Island, assignor to Atlantic Rubber Shoe Co., Trenton, New Jersey.

722,823. Foxing for rubber boots and shoes. Henry J. Doughty, Providence, Rhode Island.

722,944. Process of devulcanizing gums [by dissolving the same in vacuo in phenol and distilling the phenol]. Paul H. J. Chautard and Henri Kessler, Paris, France.

Valve for syringes, atomizers, etc. Silas Schwerin, Belleville, New Jersey, assignor to Hardman Rubber Co.

723,057. Method of manufacturing pneumatic tires. Uzziel P. Smith. Chicago, Illinois, assignor to Frank A. Seiberling, Akron, Ohio.

723,112. Fountain pen. Paul E. Wirt, Bloomsburg, Pennsylvania. 723,113. Fountain pen. Paul E. Wirt, Bloomsburg, Pennsylvania.

ISSUED MARCH 24, 1903.

723,292. Toy [of inflatable material, with sound producing device]. Herman Metzger, Chicago, Illinois.

723,299. Armor for pneumatic tires. Harry Parsons, London, England.

723,301. Seamless rubber glove. Jacob Pfeiffer, Akron, Ohio.

723,316. Tire fastener. George E. Rumrill, Carrollton, Illinois.

723,366. Vehicle tire [pneumatic, with metal protector]. William Clapp, Valparaiso, Indiana.

723,442. Foot pad [for horses]. William J. Conway, Chicago, Illinois.

723,606. Foot ball. William S. Jacobs, assignor to one half to William E. Waterman, both of Malden, Massachusetts.

723,726. Fountain pen. George W. Perks and Frederick C. Thacker, Birmingham, England.

723,735. Massage appliance [with cup shaped rubbers of elastic material]. Torsten Schillberg, Glasgow, Scotland.

ISSUED MARCH 31, 1903.

723,876. Rubber fabric for heels or the like. Michael A. Kennedy, Boston, Massachusetts.

723,038. Golf ball. Anson R. Spear, St. Paul, Minnesota.

723,945. Pneumatic tire. [A tire sheath with attaching beads and a Pardon W. Tillinghast, Cranston, Rhode Island.

724,122. Horseshoe. Thomas C. Octigan and William Peacock, Chi-

cago, Illinois.
157. Tire detacher. Alva W. Blanchard, assignor to one half to 724,157. Tire detacher. Alva W. Diameter. William H. C. Leverich, both of New York city.

724,289. Hot water bag. John H. Holt, Washington, D. C.

724,295. Pneumatic tire cover. Lewis Johnstone, Prestwich, assignor to the Radax Pneumatic Tyre Co., Limited, Warrington, England.

724,324. Hose coupling [for fire hose.] Edward T. Parsons, Louisville, Kentucky.

[Note.-Printed copies of specifications of United States patents may be or dered from THE INDIA RUBBER WORLD offices at 10 cents each, postpaid, l

THE BRITISH PATENT RECORD.

[* Denotes Applications from the United States.]

APPLICATIONS-1903.

1,793. T. Percival and J. Smith, Liverpool. Elastic tire and apparatus for attaching the same. Jan. 26.

1,799. E. A. Stretton, Birmingham. Pneumatic tire for motors and cycles. Jan. 26.

1,802. J. Lees, Manchester. Tire for motor cars. Jan. 26.

1,848. J. E. Spagoletti, London. Electrical insulators. Jan. 26.

1,882. W. G. Brett, Parkstone, Dorset. Tire for vehicles and cycles. Jan. 27.

1,914. Marie Manuel, Glasgow. Pneumatic tire for cycles and vehicles. Jan. 27.

1,951. J. D. Roots, York road, London. Rubber tire. Jan. 27.

A. J. Moseley, Southampton buildings, London. Tire for vehicles. Jan. 27.

2,022. S. J. Lilley and T. P. Bucton, Leicester. Method of construction of cushion and solid rubber tires. Jan. 28.

2 041. A. E. Moore and A. Darch, 55, Chancery lane, London. Resilient tire. Jan. 28.

A. B. Dexter, 15. Seething lane, London. Rubber cored golf 2,049. A. B. Dexto ball. Jan. 28.

2,073. A. Prinzhorn, Finsbury, London. Pneumatic tire for motor. (Continental Caoutchouc- und Guttapercha-Compagnie, Hanover, Germany.) Jan. 28.

2,058. E. J. Cleburne, 55, Chancery lane, London. Pneumatic tire. Jan 28.

2,129. H. Rudge and W. Cook, St. Helens. Pneumatic tire. Jan. 29. 2,165. C. H. Gray, III, Hatton garden, London. Golf ball. Jan. 29.

2,181. E. Midgley, 173 Fleet street, London. Non slipping bands for pneumatic tires. Jan. 29.

2,313. A. Castle and W. E. Gray, 27, Chancery lane, London. Golf ball. Jan. 30.

2,345. J. Stungo, Glasgow. Method of securing rubber tires to wheels. Jan. 31.

2,351. H. Markus and E. T. Whitelow, Manchester. Improvement in the manufacture of insulating material for wires. Jan. 31.

2,383. E. Duerr, Southampton buildings, London. Elastic tire for

vehicles. Jan. 31.
2,398. C T. Kingzett, Southampton buildings, London. Method of making golf balls. Jan. 31.

2,409. H. Seddon, Manchester. Pneumatic tire. Feb. 2.

2,593. Rt. Hon. Hubert John, Earl Cairns, Lincoln's Inn Fields, London. Pneumatic tire. Feb. 3.

H. J. Haddan, Strand, London. Self sealing pneumatic tire. *2,603. H. J. Haddan, Strand, London. See (J. W. Blodgett, United States). Feb. 3.

2,618. P. E. Roberts, Manchester. Heel pad for boots. Feb. 4.

2,623. H. J. B. Readman and H. Readman, Glasgow. Attachment to rubber tires to prevent side slipping. Feb. 4.

2,634. E. C. Pope-Sadler, 63. Bishopsgate street, London. Tire tread to prevent side slipping. Feb. 4.

2,662. H. G. Hoyos, 81, High Holborn, London. Inflatable boot tree. Feb. 4.

2,663. J. Hall, Strand, London. Pneumatic tire. Feb. 4.

2,602. J. W. O. Walker, and the Dunlop Rubber Co., Limited, London. Improvements in gloves. Feb. 4.

2,695. O. D. Lucas, 39, Victoria street, London. Insulating materia and substitute for ebonite. Feb. 4.

- thoroughfares without interrupting traffic. Feb. 5.
- E, W. Wooders, Manchester. Rubber heels and soles for 2.734. boots. Feb. 5.
- 2,760. G. Evans and J. Holmes, 55, Chancery lane, London. Pneumatic tree for boots and inflating valves therefor. Feb. 5.
- 2,766. T. Belvoir. 82, Mark lane, London. Elastic exercising apparatus. Feb. 5.
- 2, 195. O. Betts, 111. Hatton garden, London. Pneumatic tire. Feb. 5. 2,804. K. Geiser and H. Kerhli, 40, Chancery lane, London. Tena-cious elastic substance and method of producing the same. Feb. 5.
- 2,898. P. A. Martin and D. A. Martin, Birmingham. Elastic tire. Feb. 7.
- 2,899. P. A. Martin and D. A. Martin, Birmingham. Method of manufacturing elastic tires. Feb. 7.
- 2.939. C. H. Gray, 111, Hatton garden, London. Improvement in the vulcanization of rubber. Feb. 7.
- 2,999. W. Feb. 9. W. Sumner, Birmingham. Inner tube for pneumatic tires.
- 3,002. A. Cook, Quinton, near Birmingham. Pneumatic sealing device for pneumatic tires and air tubes. Feb. 9.
 3,006. T. Stewart, Glasgow. Golf ball. Feb. 9.
- 3,089. E. B. Killen, Belfast. Solid rubber tire. Feb. 10.
- 3,176. L. E. Amedroz, Southampton buildings, London. Golf ball. Feb. 10.
- 3,230. J. H. Roger, Glasgow. Golf ball. Feb. 11.
- C. A. Hunton, Mansion House Chambers, London. Means 3.254. of preventing skidding of rubber tires and puncturing of pneumatic tires. Feb. 11.
- 3,255. W. Feb. 11. W. M. Edwards, 82, Mark lane, London. Tire for vehicles.
- 3,398. C. Challiner, Manchester. Pneumatic tire for motors. Feb. 13. N. Hill and the Coventry Chain Co., Limited, Coventry. Wheel tire. Feb. 13.
- 3,452. C. H. Gray, 111, Hatton garden, London. Improvement in vulcanizing rubber. Feb. 13.
- 3.485. W. F. Reid, Lincoln's Inn fields, London [the inventor of "Velvril"]. Material for a substitute for leather, rubber, etc.
- 3,504. J. Henderson, Glasgow. Golf ball. Feb. 14.
- 3,639. O. Kimmel and H. Kimmel, London. Means for repairing pneumatic tires. Feb. 16.
- A. J. W. Curry, Kimberley, South Africa. Pressing webb patches on tire inner tubes. Feb. 16.
- 3.751. W. W. Pilkington and W. R. Ormandy, Liverpool. Improvements in weighting material for the manufacture of linoleum, rubber, etc. Feb. 17.
- 3,809. T. S. Forbes, Glasgow. Rubber tile and like flooring. Feb. 25. 3,907. W. G. Tarbet, Chiswick, London. Pneumatic tire. Feb. 25.
- 3,950. C. J. Watts, 33, Cannon street, London. Tire for motor cars and cycles. Feb. 19.
- 4,003. W. Swain and L. H. Swain, Keighly. Pneumatic tire. Feb. 20. J. M. Benzie, Glasgow. Composition for stopping punctures in tires. Feb. 20.
- M. Purser, Jr., Carlow, Ireland. Non skidding tread for pneu 4,135. matic tires. Feb. 21.
- 4,182. K. Gray, 111, Hatton garden, London. Presses for the manufacture of golf balls. Feb. 21.

PATENTS GRANTED.

- [ABSTRACTED IN THE OFFICIAL JOURNAL, FEBRUARY 4, 1903.]
- 20,253 (1901). Golf ball. C. H. Gray (of the India-Rubber, Gutta-Percha, and Telegraph Works Co., Limited), London.
- 20,293 (1901). Hoof pad. G. E. Heyl-Dia, Warrington.
- *20,296 (1901). Golf ball [Gutta-percha core in celluloid shell; for billiard balls, in hard rubber shell]. E. Kempshall, Boston, United States.
- Pneumatic tire [relates to weaving of the fabric lining 20,311 (1901). of the cover]. F. Reddaway, Manchester.
- *20,440 (1901). Horseshoe pad. C. P. Wilder, Chicago, United
 - [ABSTRACTED IN THE OFFICIAL JOURNAL, FEBRUARY 11, 1903.]
- 20,503 (1901). Pneumatic tire [with rim having steel rings to engage in grooves in the reënforced edges of the outer cover to prevent creeping]. C. Challiner, Manchester.
- 20,525 (1901). Engine packing. R. Forsyth, London.

- 2,706. J. Hodkinson, Manchester. Means for laying hose across *20,636 (1901). Pneumatic or solid tire [attached to the wheel by means of sectional plates which are held in position by transverse bolts]. C. A. Pettie and E. C. Pettie, Brooklyn, New York, United States.
 - 20,742 (1901). Pneumatic tire [with chain attached to the cycle fork, to lie against the tread to remove tacks and the like]. H. Fleming, Paris, France.
 - [ABSTRACTED IN THE OFFICIAL JOURNAL, FEBRUARY 18, 1903.]
 - *20,899 (1901). Solid rubber vehicle tire. W. H. St. John, Brooklyn, New York, United States.
 - 20,939 (1901). Pneumatic tire [having embedded within the outer cover a strip of chain mail]. E. Midgley, London.
 - 81,087 (1901). Solid rubber vehicle tire. G. C. Marks, London. (Consolidated Rubber Tire Co., Jersey City, New Jersey, United States.)

[ABSTRACTED IN THE OFFICIAL JOURNAL, FEBRUARY 25, 1983.]

- 21.400 (1901). Pneumatic tire [with the outer cover provided with a continuous row of small metal pieces on the inside]. J. Wheeldon. Sheffield.
- 21,508 (1901). Inhaler [designed also for use as a syringe, by the attachment of a rubber buib]. T. Kautz, Bad Reichenall, Germany. 21,568 (1901). Heels and soles for boots. J. Morrison, Cheshire.
- 21,691 (1901). Solid rubber tire [provided with a backing formed by vulcanizing on layers of canvas wider than the tread part, whereby lateral ribs are formed on which rest wire hoops adapted to be sprung over the edges of the rim to hold the tire in channel]. A MacMahon, New York, United States.
- 21,925 (1901). Pneumatic tire [having a secondary air tube within the the ordinary tube, which can be inflated through a separate valve should the latter become punctured]. E. H. Barlow and A. F. Waldy, London.
- 21,964 (1901). Paeumatic tire [relates to detachably connecting together the ends of the air tube]. A. Brown, Surrey.

THE GERMAN PATENT RECORD.

PATENTS GRANTED .- 1903.

- 140,611 (Class 39b). Process for manufacturing elastic molds. Mrs. Heinrich Loewy, Berlin, and Phil. Penin Gummiwaaren-Fabrik Akt.-Ges., Leipsiz-Plagwitz. Feb. 25.
- 140,946 (Cl. 71a). Heel for shoe constructed to allow of interchangeable lifts. Johannes Klumpp, Strassburg, Alsace. March 11.
- 141,210 (Cl. 39a). Process for making rubber syringes. Schlesische Gummiwaaren-Fabriken, Gustav Eichler, Breslau. March 11.

DESIGN PATENTS GRANTED [GEBRAUCHSMUSTER].

- 193,092 (Class 36). Man's vest with woven rubber band extending from the watch-pocket to back-buckling strips. Georg. Goetz, Leipsiz-Neustadt. Feb. 25.
- 193,043 (Cl. 30d). Elastic abdominal support. Wilh. Julius Teufel. Stuttgart. Feb. 25.
- 193.399 (Cl. 30g). Teething ring provided with button for attaching rubber nipple. C. Brose, Christiania, Norway. Feb. 25.
- 193,356 (Cl. 63e). Automobile tires consisting of spiral steel band covered with rubber. G. E. Junius, Paris, France. Feb. 25.
- 193,823 (Cl. 63r). Compressed air rubber tires combined with one or more annular furrows or ridges. Edmund Troast, Hamburg. March 4.
- 194,366 (Cl. 21c). Insulating band of vulcanized rubber combined with a thin layer of non vulcanized rubber. Siemens & Halske Akt. Ges., Berlin. March 11.
- 194,031 (Cl. 45i). Elastic insertion plates, diminishing wedge shaped from heel to toe, for horseshoes. Carl Zingelman, Berlin, March 11.
- 194,073 (Cl. 83a). Rubber covering for knob and bow of watches with protective cases. Alphonse Loyson, Strassburg. March 11.
- 194,438 (Cl. 15k). Hand stamp, with an elastic insert containing air channels fixed between the handle and the type plate. Deutsche Verwerthungs-Societät. G. m. b. H., Berlin. March 18.
- 194,567 (Cl 30d). Irrigators of soft rubber or rubber covered fabric in oval or rectangular tin boxes. Franz Neupert, Berlin. March 11.
- 194,845 (Cl. 30d). Combination of rubber cords and woolen threads woven into strips or bands for cold compresses, having provision for fastening attached to cloth. Mrs. H. S. Roesener, Calbe. March 18.
- 194,746 (Cl. 63e). Pneumatic tire with metallic shoe of sectional pieces radially fastened upon it. A. M. Levy. Moscow, Russia. March 18.

16, 196 (Class 706). Penholder combined with an elastic core as a support for pen. Ernst Fischer, Vienna, Austria. Feb. 25.

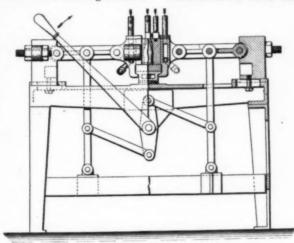
THE DOUGHTY RUBBER SHOE MACHINE.

NDER date of March 17, 1903, there was issued by the United States patent office to Henry J. Doughty, a most interesting patent [No. 722,822] for a mechanism for the manufacture of rubber shoes, which patent was assigned to the Atlantic Rubber Shoe Co. (Trenton, New Jersey). To the few persons who have seen the Doughty machines it will be recognized as one of the basic patents under which the company is working, and for which application was filed back in 1901. There are eleven claims which describe, in brief, "a mold for making rubber shoes by interior pressure consisting of outer movable parts and an interior part forming a working support, provided with an air inlet and adapted to cooperate with the outer parts to compress the work and form an air tight joint," which is the first claim exactly as it was allowed.

The second claim describes the manner of securing the shoe

in its expanded condition. The third coversthe sole mold and the two side molds for forming the sides and upper of the shoe, and the work support in combination with means for moving the side molds in opposite directions to open the top of the molds and facilitate the insertion of the work. The fourth claim describes the combination with a four part mold, the abutments adjustably secured to the form and rods connecting the abutments and forming the sliding supports of the two sides of the mold together with a toggle jointed mechanism and hand lever whereby the mold may be opened or closed by one

movement of the hand lever. In the fifth claim is described a combination with the work support, the sides of the mold and the sole mold, of chambered side blocks and chambered block for supporting the sole mold and of means for operating the side block and lifting the sole block. The sixth claim relates



FORMING AND CURING PRESS.

to the molding of the work by its being placed between unyielding surfaces and an elastic air pressure, and the seventh to means whereby the margin of the shoe is clamped between rigid surfaces so that the air under pressure may not escape. The eighth claim covers the beveled ribs in the mechanism which while they close the side molds act at the same time to raise the sole mold.

In claim number nine the inside part forming an air inlet and a margin to support the work is mentioned. Number ten treats the combination of the work support and certain surfaces whereby parts in the shoe may be pressed between the rigid part of the work support and the mold, while in number eleven the description is "a mold for forming rubber shoes by interior pressure, an inside part consisting of a perforated hollow last having an air inlet."

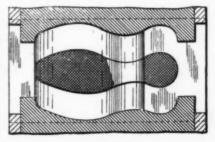
The illustrations which accompany the official specification

are eleven in number. Of these the most interesting to the casual reader is a skeleton view of the machine itself, which shows the parts of the mold closed around the shoe, the hand lever for opening and shutting the parts, and the sis repeated on this page. The other two illustrations herewith show the perforated last in position and the sole plate.

It goes without saying that the detailed description of a machine such as is found in patent specifications needs considerable imagination to spur one to construct and operate mentally from such a source. It is, therefore, inter-

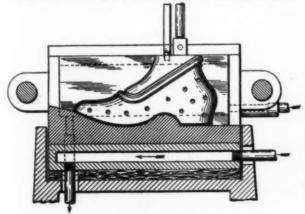
esting to know in this connection a few more facts about this most interesting mechanism. The machine itself is a marvel of simplicity and effectiveness. It is small, compact, and operated very easily by the moving of the hand lever to right and left. What its exact dimensions are, the writer does not know, but the workman standing in front of it can reach any part and its simplicity is such that one would say there was little likelihood of its ever getting out of order. It is not only a forming

press but a curing press as
well, as the
chambers referred to in the
claims are fitted
to receive live
steam, and the
side molds and
sole plate being
placed in position against
these heated



SOLE PLATE.

chambers are in a very short time, hot enough to vulcanize rubber surfaces. It is understood that in practical use the machines



PERFORATED LAST IN MACHINE.

will be made in three sizes, the largest being for boots, and the middle size for heavy overs, and the smallest for light goods. In the experimental work as showing the range of the machine both light and heavy goods were made on the smaller of the three machines. Part of the completed equipment for the battery of these machines, would be high pressure boilers giving dry steam, air compressors for the air pressure, and some minor devices and mechanisms for which patents have already been taken out.

VICTOR TIRE MACHINE AND

BRAZING OUTFIT. A VERY simple and speedy device for applying solid rubber tires to carriage wheels is shown in the accompanying illustration. To begin, the device is made wholly of metal, is light and substantial, and yet, as may easily be seen, occupies very little room. It is operated wholly by hand and requires but little effort to work it. In addition to this, the work is quickly and perfectly performed. Another valuable feature about the machine is that the whole of it is in one mechanism and does not require the transference of the wheel from one part to another in applying the tire. For the brazing apparatus a hydrocarbon torch is used, together with brass lined sleeves. All of the machine parts are numbered so that any missing part can be easily duplicated. The machine has been most thoroughly tested and is built by those who not only manufacture the tires but whose every interest lies in the line of careful fitting which is always an assistance to long life and durability. [Victor Rubber Tire Co., Springfield, Ohio.]



THE INDIA RUBBER WORLD has already given considerable space to various mechanisms used chiefly in rubber clothing

factories for the cutting of cloth. Some of these were electric and some were power cutters. A new type which is here illustrated is known as the "Star Electric Cutter." It is 14 inches in height and weighs 35 pounds. It is capable of cutting any thickness of cloth up to 31/2 inches and any width or length. A valuable feature of the cutter is the fact that it is perfectly portable, so that goods on any of the cutting

room tables can be cut with it. This is a valuable feature, as it obviates the folding of the goods and the carrying to the machine.

The construction of the machine is simple and practical. The motor is mounted high, so as not to interfere with the goods while in use. The machine is also fitted throughout with ball bearings, in itself a most valuable feature. As a rule the machine is used on a maple table, but any ordinary table with a smooth top will do. The motor is wound for 110 to 220 volts (straight current) and consumes about 10 cents worth of current a day. Each machine is fitted with its own incandescent lamp. In order to keep a perfect cutting edge, grinders are attached and can be brought into contact with the knife in an instant. [Wolf Electric Promoting Co., No. 810 Main street, Cincinnati, Ohio.]

A USEFUL "RUBBER CODE."

I'HE new "Rubber Code," reference to which has been made already in these pages, is now being distributed, and it appears to us to fulfill all the promises made in advance by its publishers. The advantage of the use of codes in sending cablegrams is so marked that it is estimated that 90 per cent, of all oversea despatches transmitted to-day are in code words, and that without the use of codes the 213,000 miles of cables now in existence would be sadly inadequate to the commercial needs of the world. The need of codes first appealed to business men in respect to cablegrams, on account of the high cost of the service, but as the aggregate of messages by land lines must represent a much larger annual expenditure, the use of codes for commercial telegrams is rapidly growing in appreciation. The advantage of this new book is that over 22,000 words have been selected, each representing the name of an article inthe rubber trade, and in addition some detail of dimension or other description, so that a single code word may be used in place of half a dozen or more ordinary words. To take a single instance, eight of the large pages of the code are devoted to Rubber Tubing, with the result that 156 different descriptions of tubing are listed, any one of which, of any desired internal diameter, may be indicated by a single word. Not only are descriptions of goods thus coded, but very many trade names and brands, so that it would scarcely be possible for a dealer or consumer to desire an article of rubber goods for which a designation cannot be found in this compilation. In addition, a single word may be used for shipping directions, for inquiries for prices, and for various other purposes which will readily suggest themselves to those who have been accustomed to use the telegraph, either in ordering goods or in responding to orders. This book, while issued as "Supplement A" to the "Western Union Telegraphic Code"-a work in wide use-"for Phrases Concerning Belting, Hose, India-rubber and Gutta-percha Mechanical Goods, Boots and Shoes, Asbestos, and Other Steam Packings, &c.," is not confined in its usefulness to owners of the Western Union Code, but is adapted for use in connection with other standard codes. It is also designed for all English speaking countries, and embraces descriptions of rubber goods peculiar to Great Britain, as well as those the use of which is confined to the United States. It embraces, among other things, the registered telegraphic addresses of rubber manufacturers and merchants in the United States and Canada, Great Britain, and the leading continental countries. The new Code has already been widely commended by rubber men. [International Cable Directory Co., No. 17 State street, New York, and Salisbury House, London wall, London, E. C.]

THE inspector of mines of Canada reports a marked development in asbestos mining in the region of which Thetford, near Sherbrooke, is the center. The output last year amounted to over \$1,000,000.

THE OBITUARY RECORD.

CHARLES A. HOYT.

CHARLES ALBERT HOYT, long well known in the hard rubber trade, died on April 18 at Pasadena, California, where he had been visiting his son, in his sixty-fourth year. He was born in Burlington, Vermont, in 1839, his father being the late Rev. William Hoyt, who left the Protestant Episcopal ministry to become a Roman Catholic priest, and was attached to St. Ann's Church, in New York, at the time of his death in 1883. The Rev. Mr. Hoyt was for a time editor of the Burlington Sentinel. Charles A. Hoyt was a graduate from the University of Vermont and from Georgetown College. In 1861



CHARLES ALBERT HOYT.

he entered the employ of the India Rubber Comb Co. at College Point, New York, which owned and controlled the Goodyear hard rubber patents, and in 1872 he became a member of the company, with the office of treasurer. which he held up to the merger of the company with the American Hard Rubber Co. in 1898. Mr. Hoyt was a man of capacity and took a deep interest in the business of the

company. As one of his surviving associates says, the officers of the company, whatever their titles, worked together with a common purpose in the promotion of its business, like so many partners in a firm. Mr. Hoyt's most direct interest, however, was in promoting the sales of the company's products. After the formation of the American Hard Rubber Co., Mr. Hoyt relinquished the details of business formerly in his charge, but remained to the end of his life a director of the company, taking an active interest in the conduct of its affairs.

Mr. Hoyt was a member of the New York Chamber of Commerce, the New England Society, the Society of the Sons of the American Revolution, the Long Island Historical Society, the Society of the Cincinnati, the Founders and Patriots of America, the Mayflower Descendants, and the Hamilton Club of Brooklyn. He was a director of the German-American Insurance Co., and vice president of the St. Vincent's Home for Boys. He resided in Brooklyn at No. 15 Pierpont street, and is survived by one son, Albert Sherman Hoyt, M. D., who lives at Pasadena. The accompanying portrait is from a photograph of Mr. Hoyt taken in November last.

JOHN M. STUDLEY.

COLONEL JOHN M. STUDLEY, a well known citizen of Providence, Rhode Island, died at his home in that city, on April 10, after a brief illness. He was born January 9, 1829, at Worcester, Massachusetts, where he lived until the beginning of the civil war. He had been connected with the state militia since his seventeenth year, and enlisted in the Union army, in which he saw much active service in the Fifteenth and

Fifty-first regiments, Massachusetts volunteers. He was taken prisoner in the battle of Ball's Bluff, and later was in the battle of Antietam. He made a good record as a soldier and an officer and attended the reunions of the two regiments named until the end of his life.

After the war Colonel Studley took a position with H. G. Norton & Co., rubber goods dealers in New York city, his younger brother, Thomas E. Studley, being at that time a member of the firm. In 1866 the two brothers purchased the interest of the senior partner in Garfield & Eddy, a long established rubber goods house at Providence, the firm becoming A. C. Eddy & Studleys. In 1883 Mr. Eddy sold his interest to the Studleys, who continued the business as Studley Brothers until the death of Thomas E., in 1896, since which time the style of the business has been Studley & Co.



COL. JOHN M. STUDLEY.

Before 1860 the firm of Garfield & Eddy had begun the manufacture of rubber syringes, bulbs, and tubing, renting for the purpose premises from the old Providence Rubber Shoe Co., and which are now occupied by the Bourn Rubber Co. Their manufacturing business was extensive at one time, orders being filled for Charles Davidson, Dr. Morris Mattson, the Davol Rubber Co., the Goodyear Rubber Co., and for many dealers. The manufacture was coninued for some time by the Messrs. Studley after the retirement of Colonel Eddy from the

Colonel Studley was a man widely known in the rubber trade, exceedingly popular, and of the old fashioned, reliable New England type. He was a lifelong Democrat and took an active interest in politics, serving for ten years (1891-1901) as a member of the Providence board of license commissioners. He was a member of the Loyal Legion and the Society of the Army of the Potomac. The funeral was attended by officers of the two regiments to which Colonel Studley had belonged. He leaves a widow and son, Colonel J. Edward Studley, president of the Manufacturers' Trust Co. (Providence), and a daughter, the wife of James B. Gay, of the same city. He is survived also by a third brother, Theodore E. Studley, secretary and treasurer of the Vulcanized Rubber Co. (New York).

WILLIAM H. ALDRIDGE.

WILLIAM H. ALDRIDGE, one of the old time mechanical goods superintendents, died at his home in Trenton, New Jersey, on April 24. He had been for some time troubled with sleeplessness, and it is supposed started out some time in the night with the idea of walking it off, was stricken with apoplexy at the top of a flight of stairs and fell to the bottom, the fall killing him instantly. The deceased was born in Pennsylvania 74 years ago and had been a resident of Trenton for nearly 60 years. He was a machinist in early life but soon left that trade to go into the rubber business, being associated with

Charles V. Meade, one of the first of Trenton's rubber manufac turers. He later became superintendent of the Star Rubber Co., from there going to the Hamilton Rubber Co. With the formation of the New York and Boston Rubber Co., at Englewood. New Jersey, he took charge of the mechanical work there, and when that company went out of existence returned to Trenton as superintendent of the Home Rubber Co. He held that position for a number of years, finally leaving it to become superintendent of the Crescent Belting and Packing Co. About five years ago he retired from active business, having acquired a comfortable competence. Mr. Aldridge was one of the old fashioned, hard working, thrifty superintendents, was an expert in his line, a man who worked side by side with his help, and was very much loved by them. Two daughters and a son survive him, the latter, Charles Aldridge, being also a superintendent in mechanical lines. . . .

ALTHOUGH not actively interested in the rubber trade at the time of his death, RICHARD R. WHITEHEAD who was buried in Trenton, New Jersey, April 22, was at one time a well known figure. He was a son of James Whitehead, of Trenton, and began his business career with the Whitehead Brothers Rubber Co. Later he was a partner in the rubber reclaiming firm of Murray, Whitehead & Murray. Some ten years ago he sold his interest in that business and moved to Boston-where he represented a large Trenton pottery house. Mr. Whitehead was prominent, socially, and was a captain in the New Jersey National Guard. He was 45 years old at the time of his decease.

JACOB D. HOLLINGER died at his home, on the family homestead, near Clinton, Ohio, on April 22, in his fifty-eighth year-Mr. Hollinger was president and general manager of the Summit Rubber Co., incorporated in May, 1902, since which time a factory has been established at Barberton. Mr. Hollinger was engaged for many years in the drug business in Akron with Augustus Warner, who still continues the business, and is the vice president of the rubber company.

THE sudden death on April 9, of GEORGE H. STEDMAN, secretary of J. H. Stedman & Co., Inc., of Boston, comes as a great shock to his many friends. Mr. Stedman, in his younger days, was clerk of the Arlington Mills, of Lawrence, from that going into the manufacture of piano strings with his father. He was a man of marked artistic ability and was prominent a number of years ago as a character sketch artist, appearing with Madame Nordica at her debut at Union Hall, Cambridge. Mr. Stedman was for thirty years a member of Amicable Lodge A. F. and M. of Cambridge, and also for many years a member of the Cambridge Art Circle. The funeral held last Saturday from his late residence in Belmont was largely attended by relatives and friends from different parts of Massachusetts, the services being conducted by Rev. R. H. Coe of Belmont, and the music by the Elmwood quartet of Cambridge. The deceased was 56 years of age, and leaves a widow, two sons, and one daughter.

MRS. CONRAD POPPENHUSEN, who died on April 9, in Hamburg, Germany, in her seventy-third year, was the widow of the late Conrad Poppenhusen, who, in 1843, entered the Hamburg firm of H. C. Meyer, Jr., since succeeded by the Harburg Rubber Comb Co., and more recently by Dr. H. Traun & Sons. In 1848 Mr. Poppenhusen came to New York, in connection with his firm's branch whalebone factory at Williamsburgh, Long Island, conducted under the name Meyer & Poppenhusen. On March 22, 1852, he took out a license for the manufacture of hard rubber, under Nelson Goodyear's patent. After doing some work at Roxbury, Mass., and Newtown, Conn. Meyer & Poppenhusen concentrated their hard rubber produc-

tion at College Point, Long Island, under the name of the Enterprise Works, which became the leading rubber comb factory in the world. The original building, with large additions, is still in use by the India Rubber Comb Co., now embraced in the American Hard Rubber Co. From this beginning, the hard rubber industry was introduced into Germany by the Meyer firm. Mr. Poppenhusen did much for the development of College Point, which grew to be a prosperous manufacturing town, and after his death his widow continued to manifest an interest in its welfare. About ten years ago she gave a dinner to the entire village. Mr. Poppenhusen was the original projector of the Long Island railroad and the first president of the railroad company. He died December 21, 1883. The subject of this notice was the second wife of Mr. Poppenhusen. Of the second generation there is now living only Frederick Poppenhusen, in business in Hamburg, a son of Mr. Poppenhusen by his first marriage.

MR. PIERPONT MORGAN'S RETORT.

BY JOHN K. BANGS, IN "THE NEW YORK HERALD."

THE other day, while Mr. J. Pierpont Morgan was seated in his office, at the corner of Broad and Wall streets, reorganizing a couple of dozen railways, the following card was brought to him by his office boy:

On Urgent Business.

"Show the gentleman in," said Mr. Morgan, throwing a scuttleful of Colorado Coal and Iron bonds on the fire, which was beginning to burn low.

"What can I do for you, sir?" asked the financier, as his caller was ushered into his presence.

"I want to enlist your interest in a project for the recovery of my buried treasure," said Captain Kidd, affably. "Down on Long Island there are \$6,000,000 in Spanish silver; in the Caribbean sea I have cachéd about \$20,000,000 worth of French, English, and Portuguese gold, and in various portions of the West Indies there are, I should say, between fifty and sixty millions of dollars' worth of gems and trinkets of wonderfully fine workmanship. In the destruction of Mont Pelée at least \$10,000,000 of my stuff went up in the air, but taking it by and large, I estimate the treasure I can lay my hands on at a round \$100,000,000."

"And what do you want me to do?" asked Mr. Morgan,

"Swing me in my expedition to recover the treasure," said Captain Kidd.

"You've come to the wrong shop," said Mr. Morgan. "I don't keep the kind of stuff here to swing a man like you. You want to go either to No. 127 Duane street or to No. 71 Broadway. The first is the Rubber Reclaiming Company and the second is the Union Steel and Chain Company. They're the people to swing you the way you ought to be swung," and Captain Kidd left the office of the great magnate cursing the chap who had led him to believe that he would be a persona grata on the "street."

IN De Nieuwe Gido (Malang, Java) appears a statement of the yield of three cultivated rubber trees (Ficus elastica), each tapped in March, 1901, and March, 1902, as follows:

	1901.	1900.	Age, 1902.
Tree No. 1 grams	2000	2385	17 yrs.
Tree No. 2	750	917	8 "
Tree No. 3	500	654	7 "

The yield reported for tree No. 1 was equal to 4# pounds in 1901 and 5% pounds in 1902.

INDIA-RUBBER INTERESTS IN EUROPE.

HIGHER RUBBER GOODS PRICES IN GERMANY.

WO circulars issued to the trade during the month are identical in form, except that one relates to technical articles and the other to surgical goods. The circular

End of March, 1903. THE undersigned rubber goods factories, owing to the continued important advances in the prices of crude rubber and other raw marerials used in the manufacture of rubber goods, are forced, in order to keep pace with the increased cost of manufacture, to place an advance of 10 per cent. on technical articles [in one circular, surgical articles] of soft rubber, taking effect April 6, 1903. This decision was concurred in unanimously at a meeting held in Berlin on the 24th instant, and is in accord with the necessity.

In the list following, * indicates signatures of manufacturers of technical goods, and † manufacturers of surgical goods:

S. Saul, Aachen.

Aktiengesellschaft für Fabrikation technischer Gummiwaren, C. Schwanitz & Co., Berlin. Behrendt & Co., Berlin-Reinickendorf.

Deutsche Gummi-Volpi & Schlüter, Berlin.

Deutsche Kabelwerke, A.-G., Berlin-Rummelsburg, Gummiwaren-Fabrik Voigt & Winde, A.-G., Berlin. Gummiwerk Oberspree, G. m. b. H., Berlin Oberschönweide.

S. Herz, Berlin.

E. Kübler & Co., Berlin.

Norddeutsche Gummi- u. Guttaperchwaren-Fabrik, vorm. Fon-robert & Reimann, A.-G., Berlin.

Vereinigte Berlin Frankfurter Gummiwaren-Fabriken, Berlin.

Bremer Gummiwerke Roland, A.-G., Bremen.

* Sächsisch-Böhmische Gummiwaren Fabriken, A.-G., Dresden Löbtau.

Schwieder, Sächsische Gummi- u. Guttaperchawaren-Fabrik, Dresden-Neustadt.
* † François Fonrobert, Finsterwalde.

Mitteldeutsche Gummiwaren-Fabrik Louis Peter, Frankfurt a/M.

Blödner & Vierschrodt, Gotha

Vereinigte Hanfschlauch- u. Gummiwaren Fabriken zu Gotha, A. G., Gotha.

Asbest- u. Gummiwerke Alfred Calmon, A. G., Hamburg. Continental Caoutchouc- u. Guttapercha Compagnie, Hannover. Hannoversche Actien Gummiwaaren Fabrik, Hannover.

Vereinigte Gummiwaren Fabriken Harburg Wien, vorm. Menier-J. N. Reithoffer, Harburg a/Elbe and Hannover Linden. * + Münden Hildesheimer Gummiwaren-Fabriken Gebruder Wetzell, A. G., Hildesbeim.

Franz Clouth, Rheinische Gummiwaren-Fabrik m. b. H., Köln-Nippes.

† Leipziger Gummiwaren-Fabrik, A.-G., vorm. Julius Marx, Heine & Co., Leipzig-Plagwitz.

Mannheimer Gummi-, Guttapercha- u. Asbest-Fabrik, Mannheim. Aktiengesellschaft Metzeler & Co., München, Gebruder Kunth, Münden, Hannöverisch.

H. M. Anton, Berlin. Fr. M. Daubitz, Berlin-Rixdorf.

Meyer & Falkenhain, Berlin.

C. Müller, Gummiwaren-Fabrik, A.-G., Berlin.

Schlesische Gummiwaren-Fabriken, Gustav Eichler, Breslau.

Hannoversche Gummi Kamm-Compagnie, A. G., Hannover-Limmer. Gustav Wellmann, Hannover-Hainholz.

Höxter'sche Gummifaden-Fabrik, Emil Arntz, Höxter.

M. Steinberg, Köin a/Rhein.

Phil. Penin, Gummiwaren-Fabrik, A.-G., Leipzig-Plagwitz.

Vulkan" Gummiwaren Fabrik Weiss & Baessler, Leipzig Lindenau.

Zieger & Wiegand, Leipzig-Volkmarsdorf.

THE GERMAN ELECTRICAL CONSOLIDATIONS.

THE new consolidated electrical manufacturing firm mentioned in the THE INDIA RUBBER WORLD for March will be known as the Siemens-Schückert-Werke G. m. b. H. [Company with limited liability.] The capital is to be 90,000,000 marks [=\$21,-420,000.] The working capital is to be contributed equally by

the Siemens & Halske and Schückert interests. The new arrangement dates from April 1. There are included the Schückert factories at Nuremberg and the Siemens & Halske dynamo works at Charlottenburg and cable works in Westend .-- The arrangements for the combination of the Allgemeine Elektrizitäts and the Union Elektrizitäts companies mentioned at the same time, have also been completed. Each concern will keep separate accounts, but will pool their profits, which will be apportioned according to the ratio of their respective capitals, the former company receiving fifteen-nineteenths and the latter four-nineteenths. The combination will become operative on July 1, and will continue for thirty-five years.

SENATOR MARET'S GOLDEN BOOK.

On the occasion of the twenty-fifth anniversary of his honorary membership of the city council of Harburg, Herr Senator Carl Maret, financial director of the Vereinigte Gummiwaaren-Fabriken, Harburg-Wien, presented to the city a beautiful and costly "Golden Book," with a view to having recorded in it in future, after their demise, the names of all persons, irrespective of their station in life, who have become prominent in services rendered the city. In his dedication Senator Maret says: "As a citizen of a steadily developing community with which I have been identified for 46 years, I have come to conclusion that the city of Harburg owes its prosperity, not alone to its favorable location, but first of all to the thrift and industry of its inhabitants, especially the aim of its burghers for the common weal which has ever been led by the zeal of its best sons."

A RUBBER TRUST IN SWEDEN?

ACCORDING to the Oeresund Post, certain financial interests in Stockholm have been concerned lately with negotiations for acquiring a majority of the shares in the three principal rubber manufacturing joint stock companies in the country. shares of these companies have, therefore, been quoted at higher figures of late, though the dividends distributed during the last few years have not been so large as formerly, when the Helsingborg company paid 50 to 60 per cent. Another reason suggested for the advance in shares is that a motion has been made before the riksdag, now in session, for an increase in the duty on imported rubber goods, although the rate is already The three principal Swedish rubber factories are the Skandinaviske Gummi Aktiebolaget, at Viskafors; the Aktiebolaget Velox, at Trelleborg; and the Helsingborg Gummi-Fabrik, Aktiebolaget.

IT WAS ANOTHER FIRM THAT FAILED.

TO THE EDITOR OF THE INDIA RUBBER WORLD: In your English notes you may be referring to the failure of Messrs. Frankenburgs, Limited, of Birmingham, Manchester, and London, in your next issue. As we have been caused annoyance by the similarity of name to our own, we should be very much obliged if you would make special mention of the fact that this firm has no connection at all with our own.

Thanking you in anticipation, we remain, yours faithfully,

ISIDOR FRANKENBURG, LIMITED. Salford, Manchester, April 9, 1903. HERBERT STANDRING, Secretary.

GREAT BRITAIN.

THE Cravenette Co., Limited (Bradford, England) are reported to have transferred their business to the Bradford Dyers' Association. The company have lately paid dividends at the rate of 15 per cent., but in view of possible future competition, the directors were of the opinion that, by accepting the terms offered by the association, more than the capital subscribed by the shareholders could be returned to the latter.

=Although the net profit of J. Mandeberg & Co., Limited, mackintosh manufacturers at Manchester, was smaller for the last business year than for the preceding year—£35,500 against £46,000—the rate of dividend is the same, 17 ½ per cent. Only £10,000 is placed to reserve, however, against £15,000 in the preceding year, and £5000 less is carried forward.

=The United States Rubber Co.'s London depôt was among the successful bidders recently for supplying waterproof coats for the employés of the tramway service in Glasgow, which is operated by the city.

=The Clyde Rubber Works Co., Limited (Glasgow) purpose erecting new and larger buildings than they now occupy, on five acres of land lately acquired.

=The Peter Union Tyre Works, 27-29, Rosebary avenue, E. C., is a new establishment in London, devoted to the sale of mechanical rubber goods and solid tires made by Louis Peter, Mitteldeutsche Gummiwaaren Fabrik, Frankfort o/M., Germany.

=The W. T. Henley's Telegraph Works Co., Limited (London), have purchased about 30 acres of land at Greenhithe (Kent) for the erection of new cable works.

=A show room for the shoes manufactured by the Bourn Rubber Co. (Providence, Rhode Island) has been opened by W. H. Levy at 34, Hatton garden, London.

GERMANY.

THE Gummi Zeitung notes that the substitute for Guttapercha patented by Adolph Gentsch, of Vienna, the manufacture of which has been taken up by Fellen & Guillaume for the continent and The New Gutta-Percha Co., Limited, in Great Britain, "is not the product called 'New Gutta," made by the firm of Gentsch & Heise, and known to our readers for years."

=The dividend for the past business year of the Hannoversche Actien Gummiwaaren-Fabrik (Hanover) will be 10 per cent,—the same as for the preceding year. The business makes a good showing, but börse quotations for the shares lately have shown a marked decline—attributed in some quarters to a heavy shareholder being forced to realize on his holdings.

=The dividend of C. Müller, Gummiwaaren-Fabrik-Aktiengesellschaft (Berlin), is 9 per cent., the same as in 1900-01. The directors again report favorable prospects.

=It is reported that a company is in course of formation in Hamburg for the purpose of establishing large new works for the manufacture of electric cables.

=The twenty-fifth business anniversary of Blödner & Vierschrodt, manufacturers of hose and rubber goods at Gotha, was celebrated on March 16, when substantial presents of money were made to the workmen.

=Hartmann & Braun, Aktiengesellschaft (Frankfort o/M.) report a net gain for last year of 170,434 marks, after writing off 109,000 marks and placing 27,000 marks to reserve, allowing a dividend of 7 per cent. Last year's dividend was 8 per cent.

=The stand at the Continental Caoutchouc- und Guttapercha Co., at the recent International Motor Exhibition at Berlin is reported to have been examined with much interest by the Kaiser, who is known to take much interest in everything pertaining to automobiles.

BELGIUM.

On the night of March 15, the machine house of the Manufacture Générale de Caoutchouc de la Meuse, at Slessin, near Liége, was destroyed by an incendiary fire. The loss was covered by insurance.

INDIA-RUBBER GOODS IN COMMERCE.

EXPORTS FROM THE UNITED STATES.

OFFICIAL statement of values for February, 1903, and the first eight months of four fiscal years, beginning July 1, not including exports to Hawaii and Porto Rico:

Монтиз.	Belting, Packing, and Hose.	Boots and Shoes.	All other Rubber.	TOTAL.
February, 1903 July-January	\$ 57.691 467,156	\$ 38.025 874,830	\$ 178,317 1,229,405	
Total	\$524.847 401.559 343,509 357.930	\$912.855 895 561 612,279 281,107	\$1,407,722 1,077,189 1.112,708 876 259	2,364,309

Pairs of rubber footwear exported during the same periods: 1898-99 1899-00. 1900-01. 1901-02. 1902-03. 362,008 530,071 1,268,585 2,272,282 2,030,218

RUBBER GOODS EXPORTS FROM NEW YORK.

VALUES during five weeks ended March 31, 1003:

* 7110 110 0		e weems ender		3.1.3-3.	
Argentina	\$ 1,149	DutchE.Ind.	210	Nova Scotia.	\$ 57
Australia	16,492	Dutch Guiana	142	Peru	189
Aus-Hung'y	6,894	DutchW.Ind.	22	Philippines	372
Azores	36	Ecuador	288	Portugal	30
Belgium	2,594	Egypt	190	Russia	155
Brazil	904	France	9,268	San Domingo	363
Brit. Africa	9.714	Fr. W. Ind	13	Spain	2,163
Brit. E. Ind.	941	Germany	24,035	Sweden	1,166
Brit. Guiana	247	Great Britain	105,064	Switzerland	147
Brit. W. Ind.	1,312	Haiti	55	Venezuela	511
Central Amer	637	Italy	103		
Chile	550	Japan	1,473	Total \$	213,157
China	155	Mexico	8,995		
Colombia	720	Netherlands.	1,418	Jan28 Feb24	144,192
Cuba	9,008	Newfoundld.	811	Jan. 1-27	148,220
Dan. W. Ind.	142	New Zealand	1,612		
Denmark	1,690	Norway	1,111	Total 3 mos \$	505,569

The exports of such goods from New York amount usually to 60 per cent. of the total from the United States.

DUTY ON IMPORTED RUBBER BIT COVERS.

VEIL Brothers (New York) imported between December, 1900, and March, 1902, several lots of goods described as "Hancock's patent rubber A I curl bit mouth cover," which was charged for duty as "saddlery and harness and parts of, either finished or unfinished," at 45 per cent. ad valorem. The importers claimed the goods to be rubber tubing, and dutiable at the rate of 30 per cent. as "manufactures of rubber." The general appraisers at New York April 9, 1903, decided: "Sheets of rubber about 6 inches in length and the same in width, rolled tubular in form, used to cover the portion of the metal bit entering a horse's mouth as a protection to the latter, detachable, and ready to be further shaped to fit any bit and suitable for no other purpose, are properly dutiable at the rate of. 45 per cent. ad valorem as 'saddlery and harness and parts of, either finished or unfinished,' under the provisions of paragraph 447, tariff act of July 24, 1897."

VACUUM DRYING OF RUBBER.

THE vacuum drying process for crude rubber is finding recognition right and left both, for rubber and materials used in rubber compounding. By the use of this apparatus it takes only about two hours to extract moisture from wet materials, and beside the saving in time there is a considerable improvement in the quality of the goods. This is owing both to the vacuum and to the low temperature employed. The American Vacuum Drying Machine Co., No. 120 Liberty street, New York, who have introduced this mechanism, are to be congratulated.

2

e

THE RUBBER TRADE IN AKRON.

BY A RESIDENT CORRESPONDENT.

TO THE EDITOR OF THE INDIA RUBBER WORLD: The demand for tires continues unabated, and the record of the present year will surpass any in the tire making history of Akron. The shipments of automobile, carriage, and bicycle tires are going out from Akron on nearly every train, but especially does the volume of the express shipments attract the notice of the casual observer. There is not a factory in Akron which is not working over time, in the tire departments, at least, and while the automobile business claims paramount attention the carriage tire trade was never so brisk so far as the demand for goods is concerned. Prices are still low—that is, the heaviest demand is more for a cheaper grade of goods than the manufacturers like to see, but the indications are that these conditions will improve.

"I look to see the chief demand to be for first class tires and a decreased call for the cheaper goods in the near future," said one prominent manufacturer. "The carriage men and the public are learning that the cheapest goods are not the cheapest in the long run. The general average of quality and prices may not be elevated much this year, but by another season I think it will be."

On the other hand, an important fact is pointed out with reference to both automobile and carriage tires. It is that the experience of the past few years has enabled manufacturers to produce really high grade tires at lower prices than formerly.

"It is the experience of the bicycle tire manufacturers all over again, in some respects," said one manufacturer. "Years ago tires were sold at \$12 a pair that now are sold at \$3. The reason is simple. In former days so costly a compound was thought necessary that tires could not be made to sell at any such prices as now obtain. Afterward it was discovered that a tougher, better wearing, and no less resilient tire could be made by using less Pará rubber and more of other ingredients. Tests were made with scores of compounds. Some factories had forty or more different compounds under test at one time. The result was that prices steadily declined, while quality no less surely increased. Brains and systematic experiments brought these results, and it is a common thing to hear a manufacturer remark how fortunate he would have been had he known a dozen years ago all that he knows now of the making of tires. We have worked all these years to produce as good a tire as possible at as low a figure as possible, and the consumer reaps the benefit. The manufacturers are entitled to no small degree of credit for what they have achieved in this. While there are some very poor tires put upon the market, no reputable manufacturer is going to put his name on an article that he does not believe to possess some merit. It is a very short sighted policy that permits a tire to go out which cannot be expected to stand the racket for a year at least, no matter how little the buyer pays for the goods."

There is no exaggeration in speaking in strong terms of the activity in the tire trade, and this includes bicycle tires as well. One manufacturer estimated that the output of bicycle tires this season would be, conservatively, 20 per cent. greater than that of last year. Some of the factories would be glad to sublet contracts in order to keep up with their orders, but are unable to do so, as all have plenty of business of their own demanding attention.

MORE men than can be had, apparently, are needed. One large factory has been advertising continuously for several weeks in all the rural weeklies and dailies in this part of Ohio

for men and still its needs are not supplied. In this connection it is a curious fact that within an hour after the fire which destroyed the plant of the India Rubber Co. on March 26, representatives of two or three other large local rubber factories were on the ground to hire men. They were picked up fast on the afternoon of the fire and the following morning, in this way, and when, two or three days later, a gentleman arrived from an outside factory to offer employment to some whom the fire had thrown out of work he found few, if any, who had not already taken employment elsewhere. And the India company employed approximately 300 people. There were girls and boys among this number, but even these quickly obtained other positions.

How long the extremely busy season is to continue is somewhat problematical. The summer months always bring a "breathing spell," if nothing more, especially in the tire departments, which now are the busiest. But there is every reason to believe that this summer the slack season will come later and last a shorter time than usual.

A DEFINITE decision with reference to the rebuilding of the plant of the India Rubber Co. has not been reached by that company and the Rubber Goods Manufacturing Co., of which the India company are a part. President L. D. Parker came to Akren soon after the fire occurred and went over the situation with care. Arrangements were made to take care of contracts held by the India company in other factories of the Rubber Goods company, but naturally the excellent business the former were building up received a setback. The India Rubber Co. were acknowledged to be in a more satisfactory condition at the time of the fire than ever before in their history. They were operating their plant to its capacity and the future seemed very bright. The insurance adjusters spoke in complimentary terms of the good order in which they found all things pertaining to the office in their investigations as to stock and goods on hand. The insurance, \$148,000 approximately, was paid in full, the adjustment being completed within a week after the fire. The India company have been repairing their machine shop, which was not totally destroyed, with a view to doing work for some of the other constituent factories of the Rubber Goods company, and molds which were saved from the flames have been shipped to these companies. W. L. Wild, the local manager, has been in Hartford to look after the progress of the work on the India Rubber Co. contracts in the factory there. As individuals Akron business men have urged the rebuilding of the ruined factory, but there is no board of trade or similar organization here to make a united effort in this direction.

* * * AKRON rubber manufacturers were considerably interested in a recent communication in THE INDIA RUBBER WORLD headed "Guarding Rubber Factory Secrets," and signed "D. L. R." The fact is that guests are seldom admitted to the large rubber factories here, and instead of the factories becoming more and more open to visitors, the reverse is true. It is not an uncommon thing for outsiders to be shown through rubber works here, but visitors simply as visitors can hardly be said to be welcome. At one time, when a large number of strangers were to be in the city, and the Akron Chamber of Commerce requested that these guests be allowed to visit the leading industries, the rubber manufacturers without exception declined to accede to the request. This refusal was partly on account of the unwillingness of the manufacturers to suffer the interruption to their work which the presence of a large number of visitors would cause, but also on account of the use of special machinery and secret processes in their factories. While the

d

p

h

п

p

pl

e

pi

cl

th

si

st

th

A

G

M

Le

sio

tio

Ma Cas Sto Pat

machines and processes of the different companies may be in most cases practically identical, still nearly every factory does have its carefully guarded secrets. Machines have been built and are in use in Akron which, the owners implicitly believe, are not duplicated in the works of any competitor. In connection with the guarding of factory secrets, and as evidence that the secretiveness is not confined to the rubber industry, the statement is made that the method of making carbon paper and typewriter ribbons is known to not more than a score of persons. While it may be true that not one among hundreds of vistors to a rubber factory would learn anything the manufacturer would not be entirely willing he should know, it is also true that, except for the policy of exclusion, Akron manufacturers would be overwhelmed by requests to be shown through their establishments. As a rubber manufacturing center this city is known far and wide, and every day strangers here express their curiosity to see "how rubber is made." In general, to admit one is to admit all, and when it is considered that nearly half a day could be spent in going from department to department in the larger factories, allowing time for only a very hasty inspection, it will be seen that the admission of visitors would keep several guides busy. Very likely it was in Akron that "D. L. R." saw the sign which read: "Owing to our many secret processes and special machines, we admit no guests to our factory." He might have seen this notice in not more than one place, but in effect it is posted in nearly, if not quite, all the Akron rubber factories.

The plant of the People's Hard Rubber Co., sold on March 16, by James W. Hoffert, assignee, to James F. Giles, is being dismantled by degrees and the machinery sold piecemeal here and there. It is generally understood in Akron that the factory and premises are for sale and it has been rumored that promoters of a prospective general rubber company had in view the purchase of the property. Nothing, however, has come of the matter. Goods and material on hand have all been shipped away.

Contracts have been let for the completion of the Akron and Barberton belt line railroad, which will connect with five important trunk lines. The road will pass the entire length of the five acre tract at Beaver and Carroll streets, purchased by The B. F. Goodrich Co. a year ago, and will make of that locality a desirable site for almost any line of manufacturing.

Plans are being prepared by The B. F. Goodrich Co. for the erection of an addition to their machine shop. The new structure will be of brick, 50×75 feet and two stories in height.

The Goodyear Tire and Rubber Co. have begun the manufacture of the Saunders compressed air golf ball, and have enough orders already on hand to insure a considerable output for this, their first season. Repeated tests on the mechanical drive the company constructed have all been favorable.

The Summit Rubber Co. are having plans prepared for an addition which will more than double their present capacity. A two-story brick structure 60×125 feet is contemplated. The company expect to add a line of mechanical goods to their present output of molded and dipped goods.

The Lilly Rubber Manufacturing Co., incorporated on February 13, and now operating in a small plant in Barberton, have begun the erection of a two story brick building 60×80 feet, which will be the main structure of their establishment.

Ex-Congressman George W. Crouse, who many years ago aided in giving the rubber business its start in Akron by reason of his faith in the Goodrich enterprise, has met with financial reverses in the receivership of The Aultman-Miller & Co., harvester manufacturers, and the subsequent bankruptcy proceed-

ings against that company and himself. Mr. Crouse as president of The Aultman-Miller & Co. was an endorser upon their paper to the extent of \$1,500,000. He has been interested in many other Akron institutions and, though not at all actively identified with the rubber trade, has long held an honorary position as second vice president of The B. F. Goodrich Co.

Rubber sociables, though no new thing the country over, have lately become popular among the young people of Akron churches. In the aggregate the quantity of old rubber gathered up by them is surprisingly large.

Alexander Adamson, proprietor of the Adamson machine shops, who reluctantly accepted the Prohibition nomination for mayor, received the largest vote in the election on April 6 ever given a candidate of that party in Akron. His vote would no doubt have been still larger, but that it became known before the election that in the event of his being elected he could not leave his business to accept the position. Ex-State Representative, Charles W. Kempel, Democrat, who was elected to the mayoralty, is a member of the Painter's union, but his campaign was not made as the candidate of the labor unions and Mr. Kempel is prejudiced neither against the employers of labor nor biased in favor of the unions. Superintendent Joseph Dangel, of the local factory of the American Hard Rubber Co., was elected councilman at large, and George S. Whitney, a foreman of the Whitman & Barnes Manufacturing Co., was elected to the council.

John F. Druckemiller, lately manager of the Central Union Telephone Co.'s Akron office, has been chosen secretary of the Akron Manufacturers' Association, reference to the organization of which was made in The India Rubber World for April, and has opened offices in the Hamilton building.

Colonel George T. Perkins, president of The B. F. Goodrich Co., is expected at home by May 1 from a two months' sojourn in California.

Messrs. R. P. Marvin and E. C. Shaw, of The B. F. Goodrich Co., returned on April 27 after an absence of seven weeks in Europe.

Manager T. W. Miller, of the Faultless Rubber Co., returned on April 15 from the Pacific coast. He reports general activity in the rubber trade beyond the Rockies.

Advices received by the Colonial Tire and Rubber Co. indicate much activity in the rubber trade, especially in France. It is also stated that there has been a considerable decline in the quantity of American rubber products shipped into France and Germany. On the other hand, the American trade has been making rapid inroads in South America and Central America, where the trade of Germany and France has always been large.

A. H. Marks, superintendent of The Diamond Rubber Co., is president, and C. B. Raymond, local manager of the American Hard Rubber Co., is vice president, of the Young Men's auxiliary of the Akron City Hospital Association recently organized. The object is to help provide for and maintain the enlarged City Hospital, a charitable institution at the head of which the older business have long stood; and the latter now invite the cooperation of the younger men.

The Haskell Golf Ball Co. continue to be very busy. For weeks their average output has exceeded 1000 dozen finished balls daily. The litigation between the Haskell company and other manufacturers for alleged infringements of patents remains to be disposed of and will probably not come up in the courts until the fall sessions.

The Camp Rubber Co. (Ashland, Ohio), really an Akron enterprise, have engaged in the manufacture of rubber sponges, which they will push actively in the trade this spring.

3. sieir

in ly ry

ve

ed

ne

on

6

ld

e-

ld

to

n-

be

of

oh

0..

a

as

on

ne

or

h

rn

h

in

ed

ty

li-

in

ce

as

al

y 8

ın

11-

d.

ed

ne

ne

or

be

nd

he

on

NEWS OF THE AMERICAN RUBBER TRADE.

EUREKA RUBBER MANUFACTURING CO.

HE plant of this new company, at Trenton, New Jersey, is now completed and is in every respect an up-to date, modern factory. The main building is a three story brick with a tower, 308×55 feet There is in addition to this, a brick storehouse, 100×60 feet; a dry heater for carriage cloth 100×55 feet; and an engine and boiler house 60×80 feet. The power equipment consists of a Watts-Campbell compound condensing tandem engine, capable of developing 1000 H.P., although at the present time the company are using about 500 H.P. The boilers were built by William R. Thropp (Trenton), and are four in number, furnishing 600 H.P. The mixing mills are 15 in number, 18×50, of Farrel make. The sheet calenders, which are 22×60, are of Farrel and Birmingham makes. In addition to these there is a 3 platen belt press (30 feet X 42 inches), together with seven hydraulic presses for mold work. The factory has its own electric lighting plant,

for which is run a special direct connected engine. For fire protection, in addition to the usual fire pumps, the mill is very thoroughly sprinkled, the International system being used. Nothing seems to have been forgotten in the making of a complete and practical mechanical goods plant, as may be seen by examination of the factory proper, the carpenter and machine shops, and the reclaiming plant and is further evidenced by a railroad siding close to the ample storehouse and entering the boiler house.

FACTORY OF THE EUREKA RUBBER MANUFACTURING CO.

CANADIAN RUBBER CO. OF MONTREAL.

AT the adjourned annual meeting of shareholders on April 8 the following board of directors was elected: H. Montagu Allan, J. B. Learmont, C. F. Smith, Andrew A. Allan, J. O. Gravel, F. C. Henshaw, Hugh A. Allan, and H. Markland Molson. At a subsequent meeting of the directors the officers were reëlected, as follows: H. Montagu Allan, president; J. B. Learmont, vice president; and E. A. Wright, secretary-treasurer. Mr. D. Lorne McGibbon was elected general manager.

BOSTON WOVEN HOSE AND RUBBER CO.

THE company have filed with the Massachusetts commissioner of corporations the following statement of their condition as of date September 1, 1902:

ASSETS. 265,300 Machinery. 300,000 Cash and debts receivable 525,080 Stock in process. 480,329 Patent rights. 10,000	LIABILITIES, Capital stock\$1,200,000 Debts
Total\$1,580,710	Total \$1,580,710

NEW ENGLAND RUBBER CLUB.

THE annual spring dinner will be given in Boston on the even-

ing of May 15. The dinner and entertainment committees believe that they have arranged for an entertainment that will be the equal at least of any dinner in the history of the Club. Full particulars will be mailed to members and friends in a few

DRESSER & CO. WILL PAY IN FULL.

AT a meeting of creditors of Dresser & Co. (New York), commission merchants in hosiery, silks, and elastic webbing, on April 8-the failure of which firm was announced in THE INDIA RUBBER WORLD last month-it was announced that their claims would be paid in full. A statement was made of the assets and liabilities, which showed liabilities of \$1,178,-057, of which \$751,000 are unsecured and \$427,047 secured, and assets of \$316,327. It was stated in behalf of Mr. Daniel Le Roy Dresser, the senior member of the firm, that within 90 days from April 7, the sum of \$850,000 in cash would be deposited with the Knickerbocker Trust Co., in trust for all

creditors, to be applied to the payment of unsecured claims against himself or the firm. He was assured that at least \$500,000 would be deposited within 30 days. It was agreed by the creditors that the bankruptcy proceedings should be dismissed and the business restored to the control of the firm as soon as the necessary legal formalities could be complied with. The creditors then offered to deduct 10 per cent. from their claims, to be applied to the legal expenses incurred and the expenses of the receivership. Mr. Dres-

ser has some very wealthy relatives, but it is understood that their aid was not required in the arrangement mentioned above.

COMBINATION RUBBER AND BELTING CO.

THE Combination Rubber and Belting Co. (Bloomfield, New Jersey) in addition to their general line of mechanical goods, are making a decided specialty of belting of all kinds, particularly mining and conveyor belting. They have recently opened a sales room and offices at No. 198 Randolph street, Chicago, Illinois.

THE PROVIDENCE RUBBER STORE.

THE firm of Studley & Co., proprietors of the original "Providence Rubber Store" (Providence, Rhode Island)-established in 1857 - is going out of existence. The business will be continued, wholesale and retail, by Edward R. Young, who has been with the house for twenty-seven years, first with A. C. Eddy & Studleys, then Studley Brothers, and latterly Studley & Co.

NEVER MADE A TIRE.

JAMES B. KELLOGG, twice convicted in connection with "get-rich-quick" schemes, was examined on April 13 in New York, on a charge of using the mails for fraudulent purposes, the case being the one referred to in the last INDIA RUB- BER WORLD (page 245). The New York Herala's report says:
Henry L. Prentice, of No. 550 West One Hundred and Forty-eighth
street, said he had been recommended to see Kellogg about underwriting \$300,000 worth of stock of the International Wheel, Tire and Rubber
Co. The par value of the stock was \$t a share, but it sold for from 10
cents to 30 cents a share. About 7000 shares had been sold, for which
he received about \$1000. The witness said the company purchased a
rubber plant in New Brunswick, but ultimately defaulted on the pay-

"Did it ever make a tire?"

" No, sir, not a single tire," replied the witness.

THE PENNSYLVANIA RUBBER CO.'S PLANT.

THE cut herewith gives a view of the new plant at Jeannette, Pennsylvania, near Pittsburgh, of the Pennsylvania Rubber Co., who removed some months ago from Erie, on account of an urgent necessity having developed, through the growth of their business, for much larger facilities than it was possible conveniently to install at Erie. The new buildings are mostly of one story construction, having the modern sawtooth roof, with its northern light, and so laid out that the superintend-



ent can survey nearly the whole interior from any part of the factory. Every precaution has been taken not only to equip the plant with the best machinery now known, but to so group the present buildings, that additions can be made for more than doubling its capacity without changing the system that has been adopted. The ground occupied at Jeannette consists of 21 acres, with a frontage on the main line of the Pennsylvania rail-road of more than 1200 feet.

STOUGHTON RUBBER CO.

THE company have filed a certificate with the Massachusetts commissioner of corporations, showing its condition on February 17, 1903, to have been as follows:

ASSETS

Land, buildings and machinery	\$180,860
Cash and debts receivable	225,101
Merchandise and stock in process	. 151,748
Sundries	7.285
Total	\$494,995
LIABILITIES.	
Capital stock	\$200,000
Debts	. 173,155
Balance Profit and Loss	101,439
Total	A

THE RUBBER SHOE FACTORIES.

A NOTICE was posted at the factories of the Boston Rubber Shoe Co. on April 14 that the usual spring vacation would not be given this year, though there may be a shutdown in midsummer. The Fells factory was shut down on March 30 and 31.

—The two companies at Naugatuck, Connecticut, closed their factories on March 28, for one week.—The two factories of the Woonsocket Rubber Co. were closed for two weeks, resuming work on April 13. The company are said to have enough orders ahead for the rest of the year.—The National

India Rubber factory (Bristol, Rhode Island) resumed work on April 6, after a shutdown of a week.—The factory of the Lycoming Rubber Co. (Williamsport, Pennsylvania) closed at the end of the last week in March for two weeks, for stocktaking and repairs.—The annual shutdown of the Apsley Rubber Co. (Hudson, Massachusetts) occurred during the week beginning April 13—Work at the Beacon Falls Rubber Shoe Co. promises to break all records for this season of the year.—The Concord Rubber Co., who are going out of business, closed their factory permanently on April 15.

BERLIN RUBBER MANUFACTURING CO., LIMITED.

The above named company are very considerably enlarging their plant at Berlin, Ontario. They are increasing their vulcanizing capacity, and erecting a four story building, 100×50 feet, to be used as a warehouse and offices. The new building will be constructed entirely of cement.

OUTING OF THE GOODRICH FISH CLUB.

THE B. F. Goodrich Fish and Game Club held their first Annual at Long Lake Park, Akron, Ohio, on Saturday, April 4. After the "Assembly" came the election of officers, the planning of business for the year to come, and the feast, the very original menu of which is appended:

Clam Chowder-Goodrich Recipe No 1 Legos Oysters.	903. Steamed Rubber Neck Clams [From Lower Basin and Lock I.]
	FISM.
Long Lake Salmon-Oil Vitriol Sauce. Lobsters-A	
1	ROAST.
Turkey-Stuffed with Old Chestnuts, Black and White Lugo, Chicken-Wagon	Duck-Sea Island, 28 oz. Beel-Up River, without Shrinkage. Spring, Patented.
VEGET	ABLES,
Potatoes—Vulcanized 35 M. at 45 lb Sweet Potatoes—Non blooming, Wire-V Onions—D	Vound. Corn-One Night Cure.
COLD D	ISHES.
Ham-Vapor Cured. Tongues-Rubber Salesmen.	Salad-Mixed Scrap. Sliced Hard Tire Cement.
BREADS AN	D PASTRY.
Mill and Calender Rolls.	Pay Rolls.
Pará Bi	
Lady Fingers-Spec	Sponge Rubber Cake.
Acera Flake	Pudding.
Jiffy Ice Cream.	Fruits of Labor.
Frozen Cut Sheet.	Nut and Set Screws.
Cheese—Spec Crackers—Ha	
Coffee	Tea
Boot and Shoe Uppers.	Mexican Cultivation.
WIN	E.
In Hot Water	Bottles only.
CIGA	RS.
Pure Gum Filler,	Cloth Wrapper.
MUS	
	ch Rubber Bands.

The wintry weather was not favorable to the outing, the trip being made by steam launch via the Ohio canal, but the attendance was large. The club contemplate leasing Long Lake park and the summer hotel there for the season. of

fo

da

BRAVERY OF A MACKINTOSH MODEL.

A NOTABLE instance of bravery was exhibited by a young married woman employed at the factory of the Hodgman Rubber Co., near New York, on the evening of April 14. On her way home from the factory she saw an express train on the New York Central railroad rounding a curve at full speed, while just ahead of it a local train was stalled. Springing between the tracks, at the risk of her life, she signalled the fast train to stop, remaining until conscious that the signal had been seen, and then leaped aside while the train went by and collided with the train in front. Its speed had been lessened, however, and the collision resulted only in the injury of several passengers, whereas otherwise the result might have been terribly fatal. The young woman, seeing that physicians were

3.

on

he

ng

0.

ng

n-

he

ed

ng

ıl-

50

g

n-

4.

n-

ry

ip

d-

rk

ng

b-

er

he d,

e-

st

ad

br

d.

al

er-

needed, was the first to think to run for nearly a half mile to the nearest telephone and send messages for aid, which soon arrived. The heroine was Mrs. Margaret H. Emmett, of Bronx-ville, N. Y., employed as a "model" in the waterproof garment department of the Hodgman factory, her duties being to try on coats made by the firm.

AN AMERICAN MADE RUBBER SPONGE.

On the editorial desk of the New York office of THE INDIA RUBBER WORLD is a rubber sponge of American manufacture that is really what it claims to be; that is, the equal, if not the superior of anything yet produced in the world. The cells are very even, the sponge is of good color, light in weight, and will take up as much water as anything in the sponge line ever produced. Just how much time and money have been spent by American manufacturers in trying to get a rubber sponge perfect will probably never be known. Certain it is, however, that dozens of companies have experimented, and at times been very near success and yet lost it by a margin narrow enough to spell "failure." Some one, however, was bound to win out, and who more likely to do so than the Camp Rubber Co., at their model plant in Ashland, Ohio, the makers of this sponge.

UNITED STATES RUBBER CO.

THE eleventh annual meeting of shareholders, for the election of directors and for the transaction of any other business which may properly be brought before the meeting, will be held at the office of the company in New Brunswick, New Jersey, on Tuesday, May 19, at 12 o'clock, M. The transfer books, closed on April 27, will reopen at 10 A. M. on May 20.——At a meeting of the board in New York on April 16, John D. Carberry, who has been connected for several years with the general offices of the company, was elected assistant secretary.—
Transactions in the company's shares on the New York Stock Exchange since our last report, have been as follows:

	COMMON.		PREFERRED.			
DATES.	Sales	High.	Low.	Sales.	High.	Low.
Week ending Mar. 28	1,300	1534	15	510	531/2	511/2
Week ending Apr. 4	1,610	151/8	14%	1,200	51	50
Week ending Apr. 9	400	15	15	420	4934	49
Week ending Apr. 18	1,550	1534	14	1,732	50	48
Week ending Apr. 25	430	15 5%	15	540	51	50

REORGANIZATION OF AN AKRON COMPANY.

In the process of dissolving the Combination Tire and Supply Co. incorporated under New York laws in September, 1902, with a capitalization of \$100,000, the assets of the company were sold to the highest bidder on April 13, at the law offices of Otis & Otis, in Akron. Difficulties encountered by the original company made dissolution advisable and the assets, consisting of tools, etc., were sold to W. S. Franks as trustee for the stockholders. A new company, to be capitalized at \$25,000, probably, and incorporated under Ohio laws, will soon be formed. The company will push the combination tire invented by W. R. Harris, fully described in The India Rubber World for December, 1902. The dissolving company never actively began manufacturing.

AN ELASTIC WEBBING COMBINE.

OUR Akron correspondent writes: "F. M. Atterholt returned on April 22 from New York, where he met gentlemen interested in the merging of the principal elastic webbing interests. Mr. Atterholt authorized the statement that Holland bankers are arranging to float the bonds of the merger company, which will have a capitalization of \$5,000,000. Details of the consolidation plan are not announced, but it is stated that fourteen concerns are interested. These are located in Rhode Island,

Massachusetts, New York, and Connecticut. Mr. Atterholt has had wide experience in combining interests in different lines of manufacturing."

ANOTHER RUBBER FACTORY AT ASHLAND, OHIO.

THE Comet Rubber Specialty Co. have organized to do business at Ashland, Ohio, as a partnership, although incorporation papers may be taken out later. The officers are: Frank J. Ward, president and manager; J. J. Dildine, superintendent; and A. Goss, secretary; O. P. Kintz, treasurer Mr. Dildine is the practical man of the company, having formerly been in the employ of The B. F. Goodrich Co. The Comet company will begin business in temporary quarters, but plans are making for the erection of a two story building 60 × 100 feet, for their occupancy. Druggists' sundries and specialties will be manufactured.

INCREASE OF CAPITAL.

THE Rubber Trading Co., No. 38 Murray street, New York, organized in March, 1902, to trade in crude rubber, at a meeting on April 25, arranged for the increase of their capital to \$100,000, which has been fully paid in,

NEW RUBBER FACTORY IN INDIANA.

The organization was completed at a meeting held at Marion, Indiana, on April 17, of a new company, formed to engage in the manufacture at that place of rubber goods and insulated wire. A large factory is projected, though a site had not been chosen at last accounts. Among those interested in the undertaking are Edward Stewart, G. A. Southall, Hiram Beshore, William Charles, Henry Smith, and R. E. Lucas. The latter was formerly secretary of the Indiana Insulated Wire and Rubber Co., of Jonesboro. The capital of the new concern, \$100,000, is reported to have been fully subscribed.

RUBBER GOODS MANUFACTURING CO.

THE following is a record of transactions in shares on the New York Stock Exchange since the last report in these columns:

	Соммом.		PREFERRED.		D.	
DATES.	Sales.	High.	Low.	Sales.	High	Low.
Week ending Mar. 28 Week ending Apr. 4 Week ending Apr. 9 Week ending Apr. 18 Week ending Apr. 25	6,350 4,000 4,500	26 ½ 25 ½ 26 ¾ 25 ¾ 25 ¾ 26 ¾	25 23¾ 24¼ 23¼ 25	510 825 100 389 1,080	78 79 79 79 82	77 77½ 79 77½ 79

THE HASKELL GOLF BALL SUITS.

SUITS have been brought against A. G. Spalding & Brother, the Kempshall Manufacturing Co., the Swift Flyer Golf Ball Co., and Patrick Brothers, for infringement of the Haskell patent on the rubber cored golf ball. The cases are pending in the United States circuit court for the southern district of New York. The suits are brought in the name of the Haskell Golf Ball Co., and The B. F. Goodrich Co., their licensees, who make and sell the ball on royalty. The plaintiffs, through the law firm of Richardson, Herrick & Neave (New York), have opened proof, and two of the defendants, Spalding & Brother and the Kempshall company, have filed their answers and are taking testimony before Commissioner John A. Shields, clerk of the court. The answers on file, besides a general denial of any obligation to the plaintiffs, only outline the defence in a broad manner. A decision is not to be expected until the early fall.

CONCORD RUBBER CO. LIQUIDATING.

THE factory of this company at Concord Junction, Massachusetts, was permanently closed on April 15, the company having previously notified the trade and their shareholders of a decision to go into liquidation. The company was incorpo-

t

a n a n b

a M jo V ti m w h

a

tl H

to

fi

to

rated under the laws of Maine in the summer of 1899 with an authorized capital of \$500,000, of which it is understood that \$145,000 was paid in. An extensive plant was acquired, which had previously been used for other manufacturing purposes, and equipped with rubber machinery with a capacity for 5000 pairs of rubber shoes per day. The decision to go out of business was arrived at only a few weeks ago, when it was determined by the management that the business could not be successfully conducted without reorganizing the company and introducing new capital, which course, in the present condition of the trade, was not deemed advisable.

RUBBER SUPPLIES FOR THE POSTAL SERVICE.

THE postoffice department at Washington advertises for bids, up to May 4, for supplies for the department and the postal service for the fiscal year beginning July 1, 1903, including the following items of rubber goods:

6000 pounds Rubber Bands (in ½ pound boxes)—250 pounds No. 11; 1500 pounds each Nos. 14 and 16; 500 pounds No. 19; 1000 pounds No. 31.
400 boxes Bevel Erasers, 20 in a box.
3 gross "Comet" Erasers.
250 Typewriter Erasers, bevel, 1 dozen in a box.

200 Typewriter Erasers, round.
120 Stamping Pads, 8" × 12" × 3%" and 12" × 16" × 3%".
1000 Stamping Pads composition rubber, muslin faced, 6" × 12" ×

3500 Hand-dating Stamps, with type for dates, etc. 50 "Model Dater" Stamps.

1540 Line Daters.

100 Band Numberers.

900 Hand Indexes. 150 Fac-similes of Signatures.

50 Self-inking Stamps.

1000 Dating Stamps with canceler.

6700 Dating Stamps for registry department. 1500 Rubber Type-dates.

26,375 Hand Stamps. 360 Stamps, self inking. 4000 Dating Stamps for money order business. 24 Self-inking Stamps for money order business.

8000 Rubber type—dates for money order business. 800 pounds Bands, for money order business.

I gross Finger Cots, for money order business, 15,000 Rural Free Delivery Stamps.

TRADE JOURNAL ADVERTISING.

MANUFACTURERS who seek business through the medium of the trade and technical journals are invited to write for a free copy of a booklet " Advertising for Profit," published by the Manufacturers' Advertising Bureau, No. 126 Liberty street, New York, established for more than twenty years, and whose present proprietor, Benjamin R. Western, was for many years a successful publisher of technical journals.

TRADE NEWS NOTES.

THE report that the old Kennebunk Mill at Athol, Massachusetts was to be started up at once as a large rubber factory with \$100,000 capital, employing over 100 hands, is a bit of newspaper enterprise emanating from Worcester which is very interesting, but has no basis of fact.

=The Superior Rubber and Manufacturing Co. (Cuyahoga Falls, Ohio), have begun work, making dipped goods, and are reported to be planning to make hard rubber goods.

=The Fisk Rubber Co. (Chicopee Falls, Massachusetts) are enlarging their tire factory and will increase their working

=The contract for the buildings of the Milwaukee Rubber Works Co. has been awarded to George Possen, of Milwaukee.

=Frederick T. Ryder, secretary of the Boston Rubber Shoe Co., has been appointed trustee of the wholesale boot and shoe house of N. Greenfelder & Co., one of the largest concerns of the kind in Chicago, who made an assignment on April 15.

=Suit has been filed against the Milwaukee Patent Puncture Proof Tire Co., and W. D. Halsted (secretary and treasurer) and the other members of the company, by the patentees of the tire which the company was formed to exploit, alleging that the defendants had failed to pay in the amount of capital promised in the original agreement, the object of the suit being to compel the payment of the full amount. The company, though formed several years ago, have not been engaged actively in

=J. C. Wilson, secretary of the Hartford Rubber Works Co., has been appointed assistant manager of all the tire making companies comprised in the Rubber Goods Manufacturing Co. that are under the control of Lewis D. Parker as president and general manager. Mr. Wilson has had charge of the Morgan & Wright plant, at Chicago, for some months past. His headquarters will remain at Hartford.

=Robinson & Tallman, crude rubber brokers, New York, on April 20, removed their offices from No. 60 Broad to No. 64 Stone street.

=The Home Rubber Co., Trenton, New Jersey, have just rented a large two-story brick building, of modern mill construction, which will be used for a general storehouse.

=The Crescent Belting and Packing Co., Trenton, New Jersey, are still adding to their already large plant, the latest build-

ing being a large three-story brick structure.

=Mr. Alexander M. Paul, manager of the Boston Woven Hose and Rubber Co., started at the first of last month for a tour of the company's agencies in all the large cities of the country, with the idea of spending considerable time in San Francisco, and on the Pacific coast. He is accompanied by Mrs. Paul.

The annual meeting of the Consolidated Rubber Tire Co. will be held in Jersey City on Monday, May 4.

=Mr. H. W. Heasley, who for a number of years had charge of the cost department of The B. F. Goodrich Co.'s plant at Akron, has accepted a position with the Republic Rubber Co., at Youngstown, Ohio, as manager of the cost department.

=The exclusive sale of the Beacon Falls Rubber Shoe Co.'s boots and shoes for Virginia and certain neighboring territory is controlled by the Craddock-Terry Co., of Lynchburg, Va. Their sale in western Missouri, and in the states of Kansas, Nebraska, and Colorado, is in the hands of the McCord Rubber Co., of St. Joseph, Mo.

=The Marlboro Wringer Co. (Marlboro, Massachusetts), incorporated April 5, 1903, under Maine laws, with \$10,000 capital, will make mop wringers and not clothes wringers.

= W. C. Coleman, broker in old and new scrap rubber, whose headquarters have heretofore been in New England, has decided to make his business headquarters in New York and will remove his main office there May 1.

=W. T. Dale, whose projected golf ball enterprise, the Cambridge Manufacturing Co. (Southington, Connecticut), was mentioned in the last INDIA RUBBER WORLD, has asked the town authorities for an abatement of taxes for ten years, which will be granted in the event that 300 or 400 hands are employed, as promised.

=R. L. Dorr, who for several years was assistant to A. H. Brown, as purchasing agent of the Boston Rubber Shoe Co., has been appointed to succeed the latter, who lately was made purchasing agent for the United States Rubber Co., in New

=The Picher Lead Co., manufacturers of blue lead, announce the removal of their Chicago office, on May 1, to more convenient and commodious quarters in the Tacoma buildings, La Salle and Madison streets.

re

r)

ed

n-

h

in

).,

g

0.

d

n

i-

0.

st

1-

n

ie

ın

y

0.

ge

at

).,

ry

a.

S,

er

1.

i-

e-

18

e

h

1-

I.

le

e

=The National India Rubber Co. (Bristol, Rhode Island) have completed an outfit of yachting shoes for the officers and men of the *Reliance*, to be worn during the Cup races.

=The incorporation is reported of the Montreal Ru ber Co., Limited, with \$20,000 capital, to acquire the business of the Montreal Rubber Co., manufacturers of waterproof garments, now carried on at Toronto. The main business of the new company will be conducted at the same place.

=Leonard J. Lomasney has been elected vice president and general manager of the Republic Rubber Co., Youngstown, O. =Poel & Arnold, importers of crude rubber, on May 1 removed their New York offices from No. 67 Pine street to the Wallace building—Nos. 56-58 Pine street.

=The Milford Rubber Co. (Milford, Massachusetts), waterproofers for the trade, by an inadvertence, were mentioned in the last INDIA RUBBER WORLD as being about to go into the manufacture of garments. Such is not their present intention.

POPE SECURES THE BICYCLE TRUST.

On April 27 an order was made in the United States circuit court at Trenton, New Jersey, directing the receivers of the American Bicycle Co., who have been in charge since September, 1902, to accept an offer of \$3,500,000 made by the reorganization committee of the creditors headed by William A. Read. This offer relates to the personal property of the American Bicycle Co., but not the real estate holdings. The offer comes from the new Pope Manufacturing Co., the incorporation of which, under New Jersey laws, was reported in the last INDIA RUBBER WORLD. There will be conveyed, under the court order above mentioned, the stock and properties of the American Bicycle Co., including those of the subsidiary companies, the American Bicycle Manufacturing Co., the International Motor Car Co., the Federal Manufacturing Co. and the National Battery Co., besides 75 per cent. of the Barwest Coaster Brake Co., and \$147,000 in the American Wood Rim Co. It is understood that Colonel Albert A. Pope-the former successful manufacturer of the "Columbia" bicycles and proprietor of the Hartford Rubber Works-will at once assume direction of the reorganized bicycle business, while holding himself in readiness to enter the automobile manufacture as the conditions of the trade may warrant. In the petition to the court on which the above order was granted, it was stated that since the appointment of receivers the American Bicycle Co. had made and sold 250,000 bicycles at a profit. -- Albert A. Pope was born in Boston in 1845; he went to the war at the age of 18, and later became a successful manufacturer of novelties. In 1877 he had a bicycle built in Boston, on plans obtained from an English maker, and learned to ride it. That year he began to import bicycles, which he sold in his novelty store in Boston. In another year bicycles were being made in America, by the Pope Manufacturing Co. Two years later this company owned a majority of the bicycle patents then operative in the United States. While his business was growing rapidly he was not without active competition-from such men as Gormully, Jeffrey, Overman, and others who became notable in the trade, but Pope was the biggest bicycle advertiser in the trade, and the name of his wheel, the "Columbia." became a household word. It was always Colonel Pope's policy to control the manufacture of all the parts of his products, to which is due his purchase of the Hartford Rubber Works, as well as tube works and other factories, all of which, under his direction, proved profitable. All told, his success has been more marked than that of any other figure in the bicycle trade. He was an important holder of the securities of the American Bicycle Co., which absorbed his together with nearly 40 other plants, with a capitalization of \$40,000,000, in 1899, and when the big company became embarrassed his was the hand that guided the plan of reorganization. To-day, at the age of 58, he finds himself in practical control of the bicycle industry in this country—a good illustration of the law of the survival of the fittest. It will be interesting, by the way, to look for his reëntrance into the rubber tire manufacturing field.

A DECREASE IN RUBBER STEALING.

SAID a prominent rubber manufacturer recently: "Rubber stealing certainly is on the decrease, and I think because the manufacturers have been awakened to the fact that in the past they all have, unknown to themselves, been considerable losers. Two years ago I had a lot of 1300 pounds of crude rubber offered me which I was sure was atolen; to-day such an amount at one offering is unknown. We certainly have some one to thank for this improvement."

SOUTHERN TRADE OF THE EUREKA FIRE HOSE CO.

PHIL C. CLARK, who has been actively engaged in the fire hose business for eighteen years, has secured the exclusive agency of the Eureka Fire Hose Co. (New York) for the sale of its brands of fire hose in the territory consisting of Texas, Louisiana, Oklahoma, and the Indian Territory. Mr. Clark is an ex-fireman and a veteran of the civil war. He will have headquarters part of the time in Texas, and at New Orleans.

SALE OF SEAMLESS RUBBER CO. STOCK.

ON March 31 at New Haven 172 shares of the Seamless Rubber Co. were offered at a sheriff's sale to satisfy a judgment obtained by the New York Commercial Co. against Earle Brothers, growing out of a transaction in crude rubber seven years ago. These shares were attached at the beginning of the litigation, which has been carried through all the courts up to the United States circuit court of appeals at Hartford, which twice rendered a decision. The par value of the shares is \$100; the price realized, allowing for accrued dividends, was \$116, the only bidder being the New York Commercial Co. A second sale, to satisfy another and similar judgment, took place on April 18, when 174 shares were offered, held part in the name of Joseph P. Earle and part by Earle Brothers.

NEW INCORPORATIONS.

RELIANCE Rubber Manufacturing Co., April 6, 1903, under New Jersey laws; to manufacture rubber novelties; capital, \$25,000. Incorporators: Albert W. Lee (40 shares), John W. Burd (20 shares), Ezra Evans (40 shares), Charles O. Joslin (40 shares), W. Holt Apgar (20 shares).

=J. E. Davis Rubber Works Co. (Buffalo, N. Y.), April 24, under New York laws; capital \$100,000. Incorporators: J. Edwin Davis, Marian Davis, and William F. Stearns—all of Buffalo. Mr. Davis, the head of the new enterprise, recently sold his interest in the American Belting Co. (Youngstown, Ohio) to capitalists in that town, and has arranged to enter into the manufacture of mold work and specialties in the line of mechanical rubber goods at Buffalo.

=Purete Rubber Co., April 6, 1903, under New Jersey laws, to make rubber goods; capital, \$25,000. Incorporators: Charles B. Elliott, Mary S. Ostrom, James Ostrom. Principal offices: Menlo Park, New Jersey. Charles B. Elliott, president and treasurer, advises The India Rubber World that the new company will manufacture pure gum dress shields, golf balls, and India Rubber and Gutta-percha sundries.

=Woven Wire Rubber Co., March 30, 1903, under New York laws; capital, \$200,000. Incorporators: Webster Bishop, Union Square Hotel; Frank F. Bailey, No. 52 Broadway; Charles W. Zaring, No. 20 Broad street—all in New York city.

PERSONAL MENTION.

MR. GEORGE P. WHITMORE, secretary of the Boston Belting Co., will, by the time this is in type, have graduated from the Appendicitis class at the Massachusetts General Hospital. His many friends throughout the trade will be delighted to know that he comes out of his brief illness in good health and spirits.

=Mr. R. A. Lowenthal, of the U. S. Rubber Reclaiming Works, has recently returned from a midwinter outing in the Mediterranean.

=The term of Mr. Frederick M. Shepard (president of the Goodyear Rubber Co.), as a member of the Essex County (New Jersey) Park Commission, expiring this year, a lively interest was felt in "The Oranges" over the filling of the vacancy, for which there were several candidates. On April 13 Mr. Shepard was reappointed, by Chief Justice Gummere, of the supreme court.

=Mr. C. S. Sanxay, second vice president of the New York Rubber Co., is at the Long Island Hospital (New York), quite ill with nervous trouble.

" A HORSE ON " MR. ELSON.

UNTIL recently, no man in the rubber trade has borne a more spotless reputation as regards strict honesty than has Mr. B. F. Elson, New York agent of the Boston Belting Co., and the act that has shattered the faith of his friends is thus set forth: It seems that during a recent visit to the Boston headquarters, Mr. Elson found it necessary to go to Cambridge. He, therefore, approached the man who for years has had charge of the company's teaming, and inquired if he might use his team, to which a most cordial assent was given. He therefore hurriedly left the building, unhitched a horse, jumped into a buggy and started. About fifteen minutes later a well known customer of the company, who had been engrossed with one of the salesmen, was horrified to find that his horse was missing, and was of two minds, whether to summon the police or call out the fire department. He was prevailed upon to be calm until Cambridge could be telephoned and Mr. Elson's attention secured. This was finally done and the good looking abstractor of other people's horseflesh returned with the animal and with many apologies. Whether Mr. Elson planned to drive straight through to New York or whether he would have returned anyway is a question that his friends claim is still unsettled. The matter is still further complicated by the statement of the head of the teaming department, who claims that he hasn't owned a driving horse in ten years, and that he simply gave Mr. Elson permission to take a truck and a pair of draft horses for his ride. In the meantime the New York agent is kept very busy purchasing a variety of refreshing liquids for the host of friends who, somehow or other, have heard the story.

THE TEXTILE GOODS MARKET.

A PRIL has been a featureless month so far as the demand for textiles from the rubber trade is concerned. There has been very little new business placed by rubber manufacturers, and very little was expected, for the reason that most of them had previously made contracts covering their requirements for the entire year. The demand for goods under contract, however, has been exceedingly good, and fully up to the expectation of the cotton goods manufacturers, all of whom are congratulating themselves that they are now under cover from the high price of cotton.

New rubber manufacturing concerns that are constantly springing up are, of course, looking around for textiles. Among the most prominent of these is the Milwaukee Rubber Works Co. These people have been in touch with the market during

the month for lines which they will consume in the manufacture of mechanical rubber goods. For the benefit of the comparatively small number of concerns that buy their goods as they need them from time to time, THE INDIA RUBBER WORLD can say that the market is extremely firm on the present price basis, with no possibility of lower prices until after the market assumes a more settled position, and it will be possible then to obtain better rates from only those who have had an old supply of cotton on hand.

Since the last issue of this Journal several of the mills of the United States Cotton Duck Corporation have shut down entirely because it was not possible to produce goods from cotton bought at present prices and sell them at the price which consumers are willing to pay. Of course, this has a restricting tendency, and enables sellers to hold their present prices firmly. It is understood that the big corporation has not sufficient raw material to carry it through the season and will be compelled to purchase raw cotton at 10½ cents a pound, or thereabouts. There has been no change in the prices for goods consumed by the manufacturers of rubber boots and shoes.

As an evidence of the importance of the rubber trade to the cotton industry it may be said that the United States Cotton Duck Corporation has been making some important changes and improvements in the manufacture of fabrics. For the purpose of facilitating the production they have been dividing up the work, so as to concentrate the manufacture of rubber goods materials at certain mills.

In regard to the market for raw cotton, there is nothing to say that will encourage the consumer of textiles. There is a division of opinion concerning the present cotton situation. That speculation has much to do with present prices is contended by a certain clique, while it is possible to find many who have been on the cotton fields and declare that there is a pronounced scarcity of the staple. One thing is certain, many of the mills are paying 10½ cents a pound for cotton in the fields, which would seem to refute the contention that speculation is the cause of high priced cotton. In the vicinity of Charlotte and Spartanburg there is a pronounced scarcity of cotton. In some of the flooded districts of Louisiana and Mississippi preparations are reported to be backward. There has been little or no rain in Texas, while some fields in Arkansas have been inundated until within the past week.

The following figures show the price of spot cotton at the various ports at the close of each week during last month:

	 	B	
	New York.	New Orleans.	Liverpoo
April 4	 10.25c.	olc.	5 36d
April 11	 10.65с.	101 c.	5.36d
Apri 18	 10 4oc.	101cc.	5.46d
April 25	 10 soc.	10.1.c.	2.46d

Manufacturers of felting have been driven to the top of their speed for several months, and some of them have been adding to their facilities during the past month in hope to make the deliveries of orders more to the liking of their customers. There have been no changes in the cost of these goods to the rubber manufacturer since the last report.

The matter of cotton duck yarns is not a factor in the market, for the reason that all, or nearly all, of the manufacturers of cotton ducks spin their own yarns. So far as other cotton yarns are concerned, the market this week shows some improvement over the recent past. Prices have not changed and there is a very fair consumption going on among the weavers. The market for cotton fabrics of every description is at the present time in very satisfactory shape, although the rubber manufacturers are having some difficulty in obtaining the advanced price for goods which they have been compelled to ask because of the higher cost of cloth.

REVIEW OF THE CRUDE RUBBER MARKET.

HE end of the month just closed finds prices of all grades higher than at the beginning of the month, with a firmer tendency of the market. There has been a particularly strong demand for coarse Parás. The arrivals at Pará continue at a rate which lessens gradually the shortage apparent at the beginning of the year as compared with the same months of the previous season, but present indications point to a smaller total output up to June 30 than last year. There was a possibility that, after the reopening of navigation on the Bolivian affluents of the Amazon-which occurred late in February-there might be large receipts of stored up rubber from that source, But the arrivals from there at Manáos showed only a temporary increase, the effect of which on the market was long ago exhausted. Pará arrivals (including Caucho) to April 24 were 25,225 tons; to the end of April last year 26,670 tons.

At the last regular monthly sale at Antwerp, on April 24, the offerings amounted to 297 tons—Uelé strips, and Upper Congo strips and ball, principally—broker's estimations on which were as high or higher than at the preceding sale. It is reported that prices realized were equal to 3½ to 4½ cents per pound over the estimations.

New York quotations on April 29 were:

e

a.

e s. e

n e e

t

d

New 10th quotation	s on Apr	ii 29 were.	
PARÁ.		CENTRALS.	
Islands, fine, newgo	@g1	Esmeralda, sausage68	@69
Islands, fine, old92	@93	Guayaquil, strip62	@63
Upriver, fine, new92	@93	Nicaragua, scrap67	@68
Upriver, fine, old98	@99	Panama, slab55	@56
Islands, coarse, new59	@60	Mexican, scrap67	@68
Islands, coarse, old	@	Mexican, siab55	@56
	-	Mangahaira ahaat	
Upriver, coarse, new 72	@73	Mangabeira, sheet52	@53
Upriver, coarse, old	@	EAST INDIAN.	
Caucho(Peruvian)sheet 59	@60		3@84
Caucho (Peruvian) ball 70	@71	Borneo	
AFRICAN.		Dollies	@
Sierra Leone, 1st quality83	@84	GUTTA-PERCHA.	
Massai, red83	@84	Prime, red	@2.25
Benguella 69	@70	Prime, white	@1.50
Cameroon ball61	@62	Lower grades75	(0)1.25
Gaboon flake40	@41	Reboiled, prime75	@ .90
Gaboon lump44	@45	Reboiled, inferior10	@ .25
Niger paste 20	@21		63
Accra flake20	@21	Balata, sheet63	@65
Accra buttons60	@61	Balata, block52	@55
Accra strips61	@62	Pontianak (in quanti-	@33
Lopori ball, prime83	@84	ties)	@ 31/2
Lopori strip, do81	@82.	Almeidina	@ 8
Ikelemba 82	@83	Tuno gum	-
Madagascar, pinky80	180	Chicle	@12
			694-
Late Pará cables quo	te:		
	Per Kilo.		Per Kilo
Islands, fine		Upriver, fine	
Islands, coarse	2\$800	Upriver, coarse	4*900
	Exchange.	, 12 ³ / ₁₈ d.	
Last Manáos advices	:		
Upriver, fine	6\$350	Upriver, coarse	
opinoi aneces statis	Exchange		4\$450
NEW YORK BURDEN	-		/
NEW YORK RUBBER	PRICES	FOR MARCH (NEW RUBI	BER).
	1903.		1901.
Upriver, fine	. 90@93	72@76 83	@86
Upriver, coarse		58@61 59	@60
Islands, fine	. 86@90	70@73 83	@84
Islands, coarse		46@48 45	@50
Cametá coarse			1000

In regard to the financial situation Albert B. Beers (broker in India-rubber, No. 58 William street, New York) advises us:

48@53

Cametá, coarse. 57@61

"During April money rates have eased gradually, and during the latter part of the month there has been a moderate demand for the best rubber paper at 5½ @ 6 per cent., and names not so well known 6 @ 6½ per cent., but during the early part of the month there was very little demand for anything."

Statistics of Para Rubber (Excluding Caucho).

	NEW YO	RK.			
	Fine and Medium.	Coarse.	Total	Total	Total
Stocks, February 28tons	283	16 =	299	704	695
Arrivals, March	1239	432 =	1671	1407	2012
	-				-
Aggregating	1522	448 =	1970	2111	2707
Deliveries, March	1025	406 =	1431	1517	1778
					_
Stocks, March 31	497	42 =	539	594	920
	=	Santa Million	=	=	_
	PARÁ.		1	ENGLAN	D.
1903.	1902.	1901.	1903	1902.	idei
Stocks, Feb. 28tons 30	1030	560	1145	1910	1025
Arrivals, March 4030	3115	3923	1455	1190	1278
_	_	-		_	_
Aggregating 4060		4483	2600	2800	2203
Deliveries, March 3805	3585	3998	1050	975	857
Stocks, March 31. 255	560	485	1550	1825	1346
	=		=		
			1903.	1902.	1901.
World's supply, March 31			4547	5811	5168
Pará receipts, July I to Mar			21,211	22,269	20,494
Pará receipts of Caucho, sam			2329	2236	1326
Afloat from Para to United S			1229	1232	1408
Afloat from Pará to Europe,	March 31		974	1600	1000

Rubber Scrap Prices.

New YORK quotations—prices paid by consumers for carload lots—are practically unchanged, as follows:

ious -are practically un	III-HELL	Beu, a	o ionowa	
Old Rubber Boots and Sh	oes-I	Domest	ic	 736 @
Do	-1	Foreign	a	 6% @
Pneumatic Bicycle Tires.				
Solid Rubber Wagon and				
White Trimmed Rubber.				
Heavy Black Rubber				
Air Brake Hose				
Fire and Large Hose				
Garden Hose				
Matting				

French Congo Rubber.

EXPORTS for 1902 amounted to 679,353 pounds, against 552,-002 pounds in 1901. Exports in 1899 amounted to 1,441,530 pounds.

Rubber Receipts at Manaos.

DURING March and for the first nine months of the crop season [by courtesy of Messrs. Witt & Co.]:

From-		MARCH.			JULY-MARCH.		
PROM-	1903.	1909.	1901.	1903.	1902.	zgoz.	
Rio Purústons	567	795	745	5040	5914	5276	
Rio Madeira	206	298	352	2074	2579	2342	
Rio Juruá	384	505	572	3155	3194	2730	
Rio Javary-Iquitos	85	198	132	1415	1210	1153	
Rio Solimões	103	58	43	1268	1450	1182	
Rio Negro	90	58	94	539	317	397	
Total	1435	1912	1938	13491	14664	13080	
Caucho	372	567	797	2139	2393	2356	
Total	1807	2479	2735	15630	17057	15436	

Liverpool.

5316@54

WILLIAM WRIGHT & Co. report [April 1]:

Fine Pard.—As anticipated in our last, there has been a furthur advance in prices; during the early part of the month [March] a sharp

rise took place, fine spot advancing from 3s. 83/d. to 3s. 103/d. and forward from 3s. 9d. to 3s. 11d. Under the influence of heavy receipts prices have since declined to 3s. 91/d. spot, and 3s. 91/d. to 3s. 101/d. forward, according to position. Throughout the month the market has been very active, and a large business has been done at current rates, buyers preponderating. The heavy months' receipts are now practically over, and, with smaller supplies and the present good demand, we should not be surprised to see a further advance next month.

On April 7, at the Liverpool court of bankruptcy, there was a further hearing in the case of Kramrisch & Co., India-rubber merchants, whose difficulties have been mentioned in THE IN-DIA RUBBER WORLD. The examination, by the official receiver, was directed to ascertaining whether the firm had been getting advances in respect of the same lots of rubber from different bankers, and to locating the goods on which such advances had been made. An order was made by the court requiring accounts to be presented, and the hearing was adjourned to April 28. As stated in our last issue the firms liabilities appear to exceed their assets by about £100,000.

EDWARD TILL & Co., April 1, report stocks:

Pará sorts	1902.	1901.
London Borneo, 26	132	172
LONDON Assam and Rangoon 3	39	21
Other sorts 138	438	640
Total 217	609	833
Liverpool { Pará	1821	1346
Other sorts 760	896	1343
Total, United Kingdom2525	3326	3522
Total, March 1	3078	2989
Total, February 1 1921	2674	3129
Total January 1	2794	2901
Total, December 1	2525	3061
Total, November 12337	2502	3040
Total, October 12464	2502	2846

PRICES PAID DURING MARCH.

		190	3.	1903.		1901	I.
Pará fine,	hard3/8.	@3/10%	Spot 3	1034@	3/1 1/4 Isl.	3/63/	@3/7%
Do	soft3/8	@3/10	Fwd 3	/1 @:	1/3 1/4 Upr	3/6	@3/634
Negroh'ds	, scrap. 3/01	6@3/11%	2	/5%@:	2/7	2/6	@2/61/2
	Islands. 3/4				2	1/11	1/2 @2/1
Rollivian	No.	tales.	9	1/1 @	2/2 .	No s	ales.

APRIL 17 .- The market has been quiet, with little business doing, but prices remain firm and a trifle higher than at the opening of the month. Sales have been made at 3s. 10 1/2 d. for fine hard Pará, spot; 3s. 10 1/2 d. @ 3s. 10% d. for May June delivery; 3s. 11d. for June-July. Fine soft cure spot sold at 3s. tod, and Caviana at 3s. 10 1/4d. Peruvians dearer for slab with sales spot and forward up to 2s. 51/2d. and buyers, and ball at 3s. 16d. @ 3s. 16d., fine being quoted buyers at 3s. 10d. At to-day's auctions there was good competition for medium sorts and dearer rates were paid. Madagascar: Fair Majunga, 2s. 41/2d.; black coated and dirty, 21. 33/d. Mozambique: good red ball, 31. 4d.; stickless sausage, 3s. 44d.; ditto rather sandy, 2s. 11d. @ 3s. Lamu ball: 2s. 11d. @ 3s. Uganda gummy ball, 2s. 3d. Nyassa: Good clean and livery ball, 3s. 6d. @ 3s. 61/2d.; fair mixed brown and livery, 3s. 3/2d. @ 3s. 43/d.; good root ball 2s 93/d.; ditto rather heated, 2s. 6d. good clean red, 3s. 2 1/d.; clean white slightly heated, 2s. 8d.

Ceylon.—Sales of 19 cases, fine thin Pará biscuits, 4s. 21/2d.@4s. 3d.; good clean scrap, 3s. 41/d @3s.61/d.

Balata.—Good rather thick sheet 2s. 5¾d; mixed inferior block, 1s. 71/4 d.

Antwerp.

. :

TO THE EDITOR OF THE INDIA RUBBER WORLD: Since our report of March 13, there have been two rubber sales. On March 27 there was a sale of 27 tons, sold at an advance of about 2 per cent. over the estimations. At the regular monthly inscription on March 31, when 450 tons were offered, 435 tons

were sold at a further advance of 2 per cent, or a total of 4 per cent. over former valuations. At this sale there were large orders from the United States. The most important lots sold

			Estimation.	Sold at.
70	tons	Uelé stripsfrancs	8.25	8 65
		Aruwimi		8 75
II	16	Lake Leopold I	8.75	8.9716
28	64	Lake Leopold II	6.90	7.40@7.4736
43	4.6	Upper Congo balls		8.90@9
32		Mongalla strips		8.00

Besides a small sale of 38 tons to be held on the 17th instant, the regular monthly sale, embracing 297 tons, will be held on

Referring to the statistical table for March, there will be noticed a decrease in importations during the first three months of the year of 355 tons, but an increase of sales during the same period of 450 tons. The steamer Albertville is expected about the 23d of the month, with 30 tons Lopori.

C. SCHMID & CO.

(

GH HIS RAAD DIN LAIL LAIL BE DONE BY THE BE FOR A A GIT A A FINISH H. A A FINISH H. A A FINISH H. A A SN H. A A SN A SN A SN A A SN A SN

A

Geor Poel Ar A. T. Man

Antwerp, April 14, 1903.

ANTWERP RUBBER STATISTICS FOR MARCH.

DETAILS.	1903.	1902.	1901.	1900.	1899.
Stocks, Feb. 28. kilos Arrivals in March Congo sorts Other sorts	428,455	258,131	570,052	416,278 332,587	250,311 250,081 189,175 60,906
Aggregating Sales in March	903,933 632,109	1,247,951 401,273			500,392 246,823
Stocks, Mch. 31	271,884	841,678	843,834	735,060	253,569
Arrivals since Jan 1. Congo sorts Other sorts	1,146,128 1,008,997 137,131				761.945 647.233 114,712
Sales since Jan. I	1,532,349	1,074,520	1,343.515	1,333,245	771,716

RUBBER ARRIVALS AT ANTWERP.

APRIL 3.—By the Philippeville, from the Con	go:	
Société Coloniale Anversoise (Est du Kwango) kilos	2,000	
Do (Såd Kamerun)	5,000	
Do (Cie. de Lomami)	23 700	
Do	700	
Bunge & Co(Société Générale Africaine)	146,600	
Do(Société Anversoise)	33,000	
Do(Société Isangi)	4,000	
Do(Comite Spécial Katanga)	2,500	
Do	1,100	
W. Mallinckrodt & Co(Alimaienne)	8,500	
L. & W. Van de Velde(Cie. du Kassai)	55,500	
Charles Dethier(La Haut Sangha)	1,000	
G. & C. Kreglinger(La Lobay)	2,000	
Société A B I R	35,200	
Société Equatoriale Congolaise	5,000	
Comptoir Commercial Congolais	12,200	
Evrard Havenith(Andrea)	200	
Comptoir des Products Coloniaux		
(Cie. de la Kadei Sangha)	2,200	
Do(Cie. de la l'Ekela Sangha)	1,600	342,000

IMPORTS FROM PARA AT NEW YORK.

[The Figures Indicate Weights in Pounds.]

septis 1. by the steamer Ambionense, from Manaos and Para:					
IMPORTERS.	Fine.	Medium.	Coarse.	Caucho.	Total
Poel & Arnold			122,300	50,800=	570,100
New York Commercial Co.		42,700	15.500	1,500=	287,000
A. T. Morse & Co		18,000	82,600	600=	140,000
United States Rubber Co.		7,400	49,800	=	98,900
G. Amsinck & Co		7,300	6,000	=	47,200
William Wright & Co		2,100	22,000	=	44,400
Edmund Reeks & Co		3,000	7,400	=	25,200
Lionel Hagenaers & Co	2,900	****	2,400	=	5,300

Total 692,800 164,400 308,000 52,900=1,218,100

April 13By the steamer Dunstan, from M		eamer Cearense, from Manáos and Pará:
New York Commercial Co. 339,300 63,200 106		Co. 45.900 14,600 79,300 600= 140.400
Poel & Arnold 258,700 123,600 123		
	,000 11,700= 125,700 Edmund Reeks & Co.	
	,800 = 131,300 William Wright & Co.	
	.400 300= 63,800 L. Hagenaers & Co	
	,500= 34,400 A. T. Morse & Co	
	.700= 12,300 Poel & Arnold	128,000 64,800 70,600 42,300= 305,70
	,000 1,000= 6,700	
	= 300 Total	. 341,000 101,900 284,200 153,700= 880,80
Total 813,800 221,400 348	Norm - The steamer H	oratte is due at New York on May 3, with 335 tons Rub
		CHNED ATO Confined
PARA RUBBER VIA EUROPE.	CENTRALS—Continued.	CENTRALS—Continued.
MARCH 28 -By the Celtic=Liverpool:	APRIL 4.—By the Carib 11.=Truxilio:	G. Amsinck & Co
Poel & Arnold (Fine)	Regers & Heinlein	A. D. Straus & Co 300
MARCH 30 -By the Campania=Liverpool:	H. W. Peabody & Co 400 3,700	For Hamburg 200 12,000
Poel & Arnold (Fine)	and made of the same ground and to fee man.	AFRICANS.
MARCH 30.—By La Savoie=Havre:	E. B. Strout 14,000	POUNDS
Poel & Arnold 10,000	Andreas & Co 2.000	MARCH 25By the Bovic=Liverpool:
APRIL 2 -By the Oceanic=Liverpool:	Jimenez & Escobar 500	United States Rubber Co 22,500
Poet & Arnold (Fine) 18,500	G. Amsinck & Co	George A. Alden & Co 12,000 34,500
APRIL 3.—By the City of Washington=Mollendo:	Lawrence Johnson & Co 600	MARCH 28.—By the Celtic=Liverpool:
John M. Parr's Sons (Fine)	For Europe 4,000 31,600	Poel & Arnold
New York Commercial Co 5.500 16,000	APRIL 8By the Belgravia=Hamburg:	United States Rubber Co 11,500 54,500
	Poel & Arnold 8,500	MARCH 80 By the Campania=Liverpool:
OTHER ARRIVALS AT NEW YORK	APRIL 8.—By the Coleridge=Bahia:	Otto Meyer 7,000
CENTRALS.	Booth & Co	Joseph Cantor 6,500 13,500
MARCH, 25.—By the Seguranca=Colon:		MARCH 30 By the Graf Waldersee= Hamburg:
3. Amsinck & Co 8.000	APRIL 9 -By El Dia=New Orleans:	George A. Alden & Co
H. Marquardt & Co 6 900	Manhattan R. Mfg. Co	A. T. Morse & Co 30,000 60,000
saac Brandon & Bros	APRIL 13.—By the Allianca=Colon:	MARCH 30.—By the Minnetonka=London:
merican Trading Co 3.700	L. M. Chemedlin & Co	Poel & Arnold 44,000
merican Trading Co. 2,700 A. De Lima & Co. 2,000	Hirzel, Feltman & Co 5,600	APRIL 2.—By the Oceanic=Liverpool:
idanque Bros. & Co	G. Amsinek & Co 4.600	George A. Alden & Co 155,000
awrence Johnson & Co 1,900	Isaac Brandon & Bros. 3,200 Dumarest & Co. 2,900	Poel & Arnold
azord Freres	Piza. Nephews & Co 2 200	United States Rubber Co 7.000
Dumarest & Co 1,500	Jimenez & Escobar	A. T. Morse & Co 6,500 260,500
'iza Nephews & Co	Eggers & Heinlein 1.800	APRIL 6.—By the Umbria=Liverpool:
ilva Bussenius & Co 800	Fidanque Bros. & Co	George A. Alden & Co
oseph Hecht	Kunhardt & Co 800	Otto Meyer
verett, Heaney & Co 300	Smithers, Nordenholt & Co 500	APRIL 7 By the Kroonland=Antwerp:
Cunhardt & Co 300 43,000	W. R. Grace & Co 200	A. T. Morse & Co 34,000
MARCH 27 By the Monterey=Mexico:	H. Marquardt & Co 300 34,900	APRIL 8 -By the Belgravia=Hamburg:
hebaud Brothers	APRIL 13.—By the Canova=Bahia:	Poel & Arnold 28,000
larburger & Stack	J. H. Rossbach & Bros	Otto Meyer
I. Marquardt & Co	AFAIL 13.—by the reer mid=Liver poor.	A. T. Morse & Co 7,000
or Hamburg 2,500 10,600	Otto Meyer 2,000 George A. Aiden & Co 4,000 7,000	A. T. Morse & Co
MARCH 27By El Mar=New Orleans:		APRIL 9By the Teutonic=Liverpool:
T. Morse & Co 4,000	APRIL 13.—By the Excelsior=New Orleans:	George A. Alden & Co 7,000 A. T. Morse & Co
MARCH 31.—By the Altai=Savanilia, etc.:	A. T. Morse & Co	United States Rubber Co 9.000
menez & Escobar	APRIL 20.—By the Vigilancia=Mexico:	Poel & Arnold 3.000
. Amsinck & Co 2.000	B. Steiger & Co	
Ferro	Thebaud Bros 3,500	APRIL 10.—By the Pennsylvania=Hamburg:
D. Straus & Co 900	Harburger & Stack 2,000	George A. Alden & Co
raham, Hinkley & Co 600	Samuela Brothers 500	United States Rubber Co 12,000 20,500
MARCH 3!.—By the Proteus=New Orleans:	H. Marquardt & Co	APRIL 13By the Dona Maria=Lisbon:
T. Morse & Co	For Hamburg 2,500 14,000	Poel & Arneld 44,800
ggers & Heinlein 700 2,700	AHRIL 20By the Protous=New Orleans:	APRIL 13.—By the Zeeland=Antwerp:
APRIL 1.—By the Tition=Bahia:	A T Morse & Co 6 000	Poel & Arnold 150,000
H. Rossbach & Bres 29,000	W. Loaiza & Co 2,500	A. T. Morse & Co
APRIL 3 -By the City of Washington=Colon:	Rggers & Heinlein 2,500 T. N. Morgan 500 11,500	William Wright & Co 3,000 190,500
irzel, Feltman & Co 2,700	APRIL 21.—By the Seguranea=Colon:	APRIL 15 By the Rhynland=Antwerp:
M. Capen Sons	Hirzel, Feltman & Co 6,300	George A. Alden & Co 182,000
	L. N. Chemedin & Co	Poel & Arnold 70,000 202,000
nithers, Nordenholt & Co 1,100 Marquardt & Co	H. Marquardt & Co 2,600	APRIL 17.—By the Germanic=Liverpool:
Amsinek & Co 1,000	G Ametrok & Co	Poel & Arnold
Santos & Co 700 N. Chemedlin & Co 300 12,100	E. B. Strout. 1.400 Andreas & Co. 1,200	H. A. Gould Co
APRIL 2.—By the Occanic=Liverpool:	Jimenez & Escabar 1,700	APRIL 20By the Etruria=Liverpool:
	M. A. de Leon	Otto Meyer 9,000
pel & Arnold 4,300 8,400	Joseph Hecht	Poel & Arnold 6,000 18,000 APRIL 20.—By the Peninsular=Lisbon:
APRIL 3.—By El Monte=New Orleans:	APRIL 21 -By the Byron=Bahia:	George A. Alden & Co 70,000
T. Morse & Co 6,500	Booth & Co	oel & Arneld 70,000
	J. H. Rossbach & Bros 4,000 20,500	Poel & Arnold
APRIL 4.—By the Havana=Mexico:	APRIL 21.—By the Valencia=Eavanilla, etc.	APRIL 21.—By the Finland=Antwerp:
Probst & Co	Isaac Brandon & Bros 4.000 D. A. De Lima & Co	George A. Alden & Co
. Marquardt & Co 500	Lawrence Johnson & Co 2,000	Poel & Arnold
lliard, Hawes & Co 800	J. H. Recknagel & Co	
lliard, Hawes & Co 800	Kunhardt & Co 1,200	APRIL 22.—By the Georgic=Liverpool: United States Rubber Co

EAST INDIAN.	APBIL 17.—By the Pairieta = Hamburg: To order	7,000	Exports: India-rubber	\$ 9,766 8,790
MARCH 30.—By the <i>Philadelphia</i> = London: Poel & Arnold	APRIL 20.—By the Hindustan=Singapore Robert Branss & Co	11,000	Rubber Serap Imported 1,421,316	\$87,650
APRIL 17By the Germanic=Liverpool:	BALATA. MARCH 27.—By the Grenadu=Bolivar:			POUNDS
April 20.—By the Philadelphia=London:	Thebaud Brethers	8,500	March 3.—By the Sachem=Liverpool: Poel & Arnold—African	1,615
Poel & Arnold	MARCH 27.—By the Minnehaha=London: Barle Brothers	2,500	MARCH 17.—By the Sagamore=Liverpool :	13,761
PONTIANAK.	APRIL 13.—By the Minnehaha=London: Earle Brothers.	4,50	March 18.—By the Cestrian=Liverpool:	13,101
April 20.—By the Hindustan=Bingapore: Beorge A. Alden & Co	_		MARCH 27.—By the Devonian=Liverpool:	2,317
f. H. Recknagel & Co	CUSTOM HOUSE STATIST		George A. Alden & Co.—African	2,570
	PORT OF NEW YORK—MARCH	VAI UE.	Total Imports	20,268
GUTTA-PERCHA AND BALATA.	Gutta-pereha 24,854	12,150	[Value, \$10,988.] GUTTA-PERCHA.	
APRIL 13.—By the Minnshaha=London:	Gutta-felutong (Pontianak) 1,525,484	38,389	MARCH 30 -By the Cambrian=London:	
fo order	Total 6,948,482 \$2	3,052,638	C. H. Arnold & Co	18,083

MARCH EXPORTS OF INDIA-RUBBER FROM PARA (IN KILOGRAMS).

1000 KILOGRAMS=2204.6 POUNDS.

EXPORTERS	UNITED STATES.				EUROPE.				TOTAL		
	FINE.	MEDIUM.	COARSE.	CAUCHO.	TOTAL.	FINE.	MEDIUM.	COARSE.	CAUCHO.	TOTAL.	TOTAL
Cmok, Schrader & Co	101,660	35,360		_	214.080	243 676	23,515	38,790	82,553	388.534	602 614
Frank da Costa & Co	81,624	13,372	138,666	1,240	234.902	59 630	7.128	19,224	-	85,982	320,88
Adelbert H. Alden	13,870	5,330	21,206	-	40 406	13,860	900	1,920	1,486	18,166	58,572
Neale & Staats	-	_	18,800	-	18,800	6,879	1,170	542	53,773	62,364	81,164
Denis Crouan & Co	14.384	1,507	14,615	-	30,506	5,082	846	12 946	-	18.874	49,380
R. Suarez & Co	-	_	-	-	_	11,866	691	2,591	14,201	29.349	
Pires, Teixeira & Co	6 536	327	6,654	_	13.517	6,787	223	4,643	_	11,653	
Sundry small shippers	16,980			522	22,044	8,831	595	10,652	_	20,078	
Direct from Iquitos	-	-	-	-	-	20,386	3,382	14.755	41,291	79,814	79,814
Direct from Manáos	759,611	198,308	186,062	90,358	1,234,339	713,829	102,815	157,701	330,851	1,305,196	
Total for March	994,665	256,584	465,225	92,120	1,808,504	1,000,826	141,265	263,764	524,155	2,020,010	3,828,604
Total for JanFeb	1.844,753	447,286	1,273,043	361.503	3,926,585	2,160,364	271.912	543,129	676,125	3,651,530	7.578.119
	2.724,574		2,172,215		5,625,318			1,113,862			11,860,679
TOTAL, CROP YEAR	5,563,992	1,353,776	3,910,483	532,246	11,360,497	7,262,792	1,022,600	1,920,755	1,700,754	11,906,901	23,267,398

OFFICIAL STATISTICS OF CRUDE INDIA-RUBBER (IN POUNDS).

UNI	TED STAT	ES.		GRI	SAT BRITA	IN.	
MONTHS,	IMPORTS.	EXPORTS.	HET IMPORTS.	MONTHS.	IMPORTS.	EXPORTS.	NET IMPORTS
February, 1903	4,846,439 5,881,341	320,389 191,006	4,526,050 5,690,335	February, 1903	4,365,312 5,278,784	2,531,200 4,229,344	1,834,112
Two months, 1903 Two months, 1902 Two months, 1901	10,727,780 9,621,307 8.513,064	511,395 492,495 598,780	10,216,385 9,128,812 7,914,284	Two months, 1903 Two months, 1902 Two months, 1901	9,644,096 11,242,448 10,115,056	6,760.544 5,225,248 4,727,632	2,883.552 6,017.200 5.387,424
G	ERMANY.			1	ITALY.		
MONTHS.	IMPORTS.	EXPORTS.	MET IMPORTS.	MONTHS.	IMPORTS.	EXPORTS.	NET IMPORTS.
February, 1903	2,554,200 3,012,020	990,460 1,161,360	1,503,740 1,850,660	February, 1903	-	-	
Two months, 1903 Two months, 1902 Two months, 1901	5,566,220 4,695,460 4,176,260	2,451,820 1,711,160 885,940	3,414,400 2,984,300 3,290,320	Two months, 1903	310,640 318,120	42,240 46,420	268,400 271,700
1	FRANCE.*			AUSTR	IA-HUNG	ARV.	
MONTHS.	IMPORTS.	EXPORTS.	HET IMPORTS.	MONTHS.	IMPORTS.	BXPORTS,	NET IMPORTS.
February, 1903	1,021,020	873,400 693,880	147,620 684,640	February, 1903	216,260 260,920	220 220	216,040 260,700
Two months, 1903 Two months, 1902 Two months, 1901	2,399,540 3,350,380 2,324,740	1,567,280 1,209,340 727,100	832,260 2,141,040 1,597,640	Two months, 1903 Two months, 1902 Two months, 1901	477,180 440,220 451,880	440 440 4620	476,740 439,780 447,260

Note.—German statistics include Gutta-percha, Balata, old rubber, and substitutes. French, Austrian, and Italian figures include Gutta-percha. The exports from the United States embrace the supplies for Canadian consumption.

